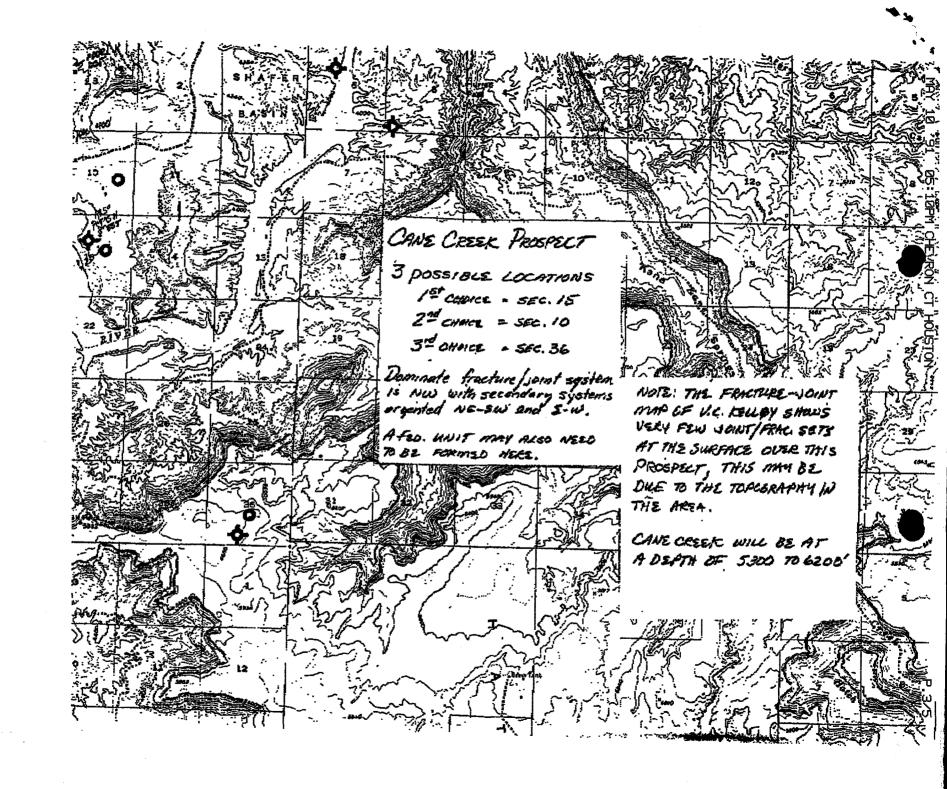
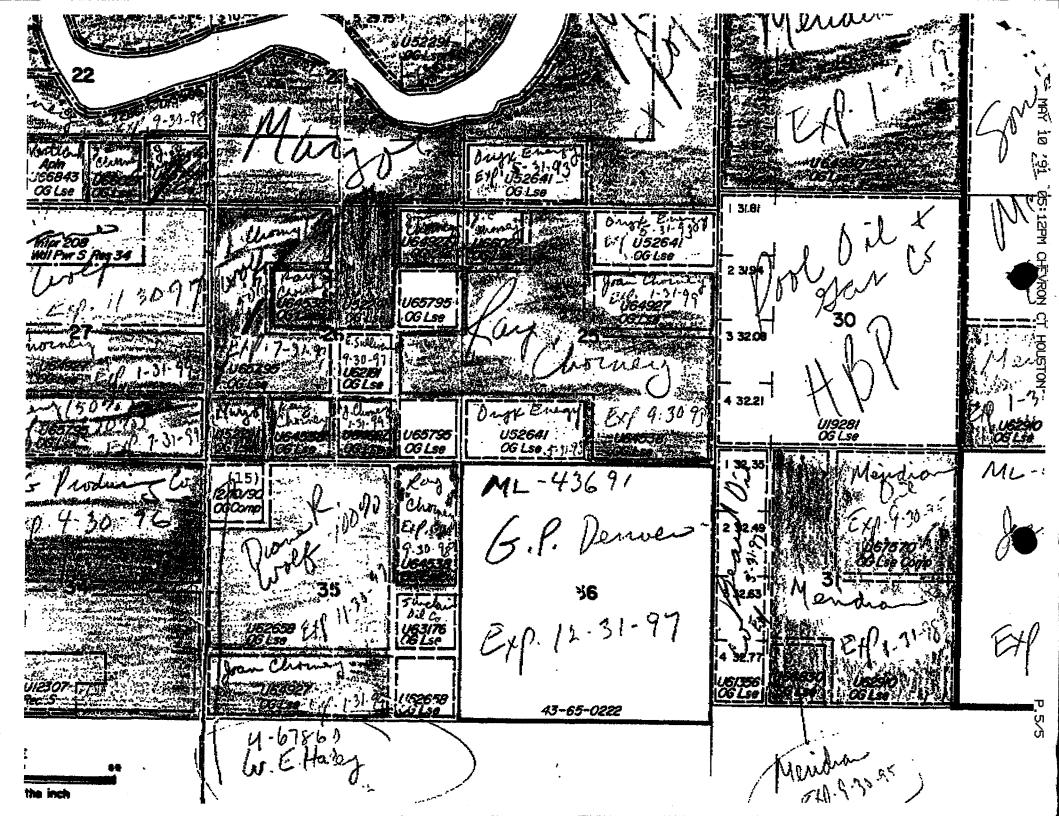
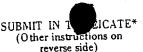
NOTICE OF STAKING	6. Lease Number
(Not to be used in place of <a href="Application for Permit to Drill Form 3160-3">Application for Permit to Drill Form 3160-3</a> )	<i>ML-43691</i> 7. If Indian, Allottee
<pre>1. Oil Well [⋉] Gas Well [ ] Other</pre>	7. If Indian, Allottee or Tribe Name
2. Name of Operator:	8. Unit Agreement Name
Cheuron USA The.  3. Name of Specific Contact Person:	
<ol><li>Name of Specific Contact Person:</li></ol>	9. Farm or Lease Name
4. Address & Phone No. of Operator or Agent	ane Creek State
DA Rose FOR Danies Of CARAL	# / 3/2
P.O.Box 599 Denver Co. 80201  5. Surface Location of Nell	#/-36 11. Field or Wildcat Name
Attach: a) Sketch showing road entry onto pa pad dimensions, and reserve pit.	ad, Wildcat
b) Topographical or other acceptable map showing location, access road and lease boundaries.	
MAY 1 3 1991	
DIVISION OF	Sec. 36, 7275, R20E 13. County, Parish or Borough
OIL GAS & MINING	, a
	San Tuan
15. Formation Objective(s) 16. Estimated Wel	17. State
Depth 7 AAA: TVD	11/26
Paradox 9,000' Measur  17. Additional Information (as appropriate; mus-	t include surface owner's
name, address, and telephone number)	
18. Signed Gan Wallon T	itle polinical (Issistant
Date 5/10/91	
Note: Upon receipt of this Notice, the Bureau will schedule the date of the onsite pr	edrill Aspection and notify
you accordingly. The location must be be flagged prior to the onsite	branch allo access road must
	rior to the onsite:
a) H <sub>2</sub> S Potential b) Cultural Respirces (Achaeology) c) Federal Right (1) ay or Special Use	ŭ orma =
c) rederal kight ay or Special use	r timi t

(IMPORTANT: SEE REVERSE SIDE FOR INSTRUCTIONS)





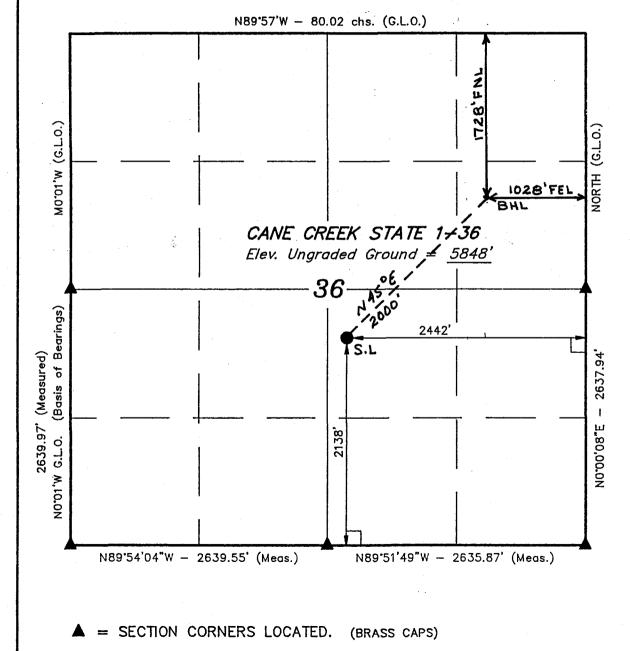
## STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES



SUBMIT IN TO AICATE*  (Other instructions on reverse side)
reverse side)

DEPARTMENT OF NATURAL RESOUR	CES	5. Lease Designation and Serial No.
DIVISION OF OIL, GAS, AND MININ	IG	ML-43691
APPLICATION FOR PERMIT TO DRILL, DE	EPEN, OR PLUG BACK	6. If Indian. Allottee or Tribe Name
1a. Type of Work  DRILL [X]  DEEPEN	PLUG BACK	7. Unit Agreement Name
b. Type of Well Oil Gas Other Well Other	Single X Multiple Zone Zone	8. Farm or Lease Name  — Cane Creek State
2. Name of Operator Chevron U.S.A. Inc.	RECEIVE	9. Well No. #1-36
PO Box 599, Denver, CO 80201	State requirer JUN 1 9 1991	19. Field and Pool, or Wildcat Wildcat OO
1. Location of Well (Report location clearly and in accordance with any At surface 2442' FEL, 2138' FSL NWSE	DIVISION OF	11. Sec., T., R., M., or Blk. and Survey or Area
At proposed prod. zone 1028 FFI 1728 FNL	OIL GAS & MINING	Sec. 36, T27S, R20E
14. Distance in miles and direction from nearest town or post office* +61 miles southwest of Moab, Utah		San Juan Utah
15. Distance from proposed location to nearest line ft.	640	of acres assigned this well 640
(Also to nearest drig. line, if any)	"11"7150" TVD/7318; MU	tary or cable tools  Rotary
to nearest well, drilling, completed, or applied for, on this lease, ft.	2) 7040' TVD/8800' MD	22. Approx. date work will start*
21. Elevations (Show whether DF, RT, GR, etc.) 5848 GR		8/1/91
23. PROPOSED CASIN	G AND CEMENTING PROGRAM	,
Size of Hole Size of Casing Weight per Foo	ot Setting Depth	Quantity of Cement
Size of Hole Size of Casing Weight per 750		Cmt to Sfc
17½" 13-3/8" 68	700	Cmt to Sfc
$\frac{17-2}{12\frac{1}{4}}$ 9-5/8" 47.0	1000	Cmt to Sfc Cmt to 9-5/8" csg F/top of
7" 26 Note:	1EUTHIONE REPORT 7-11-9	production interval, slotted liner in lateral section.
Item 19 - Well is to be drilled direction evaluate the Cane Creek, then possible Cane Creek at approx 7040' TVD surface at N 45° E.	for a horizontal displa	acement of 2000' from
Item 23 - 9-5/8" casing is to be 10 to		
IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal ductive zone. If proposal is to drill or deepen directionally, give pert	is to deepen or plug back, give data or inent data on subsurface locations and i	n present productive zone and proposed new pro- measured and true vertical depths. Give blowout
	<sub>itle</sub> Technical Assistan	t Date 6/18/91
(This space for Federal or State office use)	APPRO	OVED BY THE STATE
13-037-31031		JTAH DIVISION OF
Permit No. 43-33		GAS, AND MINING
Approved by	THE DATE:	
Conditions of approval, if any:	BY:	Matthew
	WELLS	PACING: 4/5-3-3
*See Inst	ructions On Reverse Side	

## T27S, R20E, S.L.B.&M.

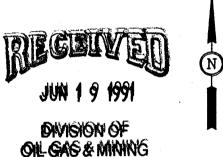


## CHEVRON U.S.A., INC.

Well location, CANE CREEK STATE 1-36, located as shown in the NW 1/4 SE 1/4 of Section 36, T27S, R20E, S.L.B.&M. San Juan County, Utah.

## BASIS OF ELEVATION

HATCH TRIANGULATION STATION LOCATED IN THE S 1/2 OF SECTION 34, T27S, R20E, S.L.B.&M. TAKEN FROM THE SHAFER BASIN QUADRANGLE, UTAH, SAN JUAN COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 5883 FEET.





THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR REGISTRATION NO. 5709 STATE OF UTAH!

REVISED: 6-3-91 R.E.H.

UINTAH ENGINEERING & LAND SURVEYING

85 SOUTH 200 EAST - VERNAL, UTAH 84078

(801) 789-1017

1	()		
SCALE 1" = 1000'		DATE 5-21-91	
PARTY D.A. K.L.	J.R.S.	REFERENCES G.L.O. PLAT	
WEATHER		FILE	
WARM		CHEVRON U.S.A., INC.	

## CHEVRON U.S.A. INC. KANE CREEK STATE 1-36 SEC. 36, T27S, R20E SAN JUAN COUNTY, UTAH

#### MULTIPOINT SURFACE USE PLAN

## 1. Existing Roads

- A. See Map A. We do not plan to change, alter or improve upon any State or County roads.
- B. To reach the proposed location travel south from Moab, Utah via Highway 163 approximately 21.8 miles to La Sal Junction, turn right onto San Juan County Road 131 and travel southwesterly 4/5 miles, turn right onto County Road 132 and travel approximately 3.5 miles to Hatch Ranch Canyon, turn northwesterly for about 7 miles, turn right onto BLM Hatch Point Road, travelling northwesterly as shown approximately 9.3 miles to a junction near the campground. Turn left and follow existing trail approximately 4.3 miles, turn right on jeep trail to location.

## 2. Planned Access Roads

See Map B. The BLM Hatch Point Road will be used as-is during the exploratory phase. The County and BLM roads will be maintained in as-good-as or better condition. Upgrading will take place if the well is a producer. The existing jeep trail shown needs to be upgraded and approximately 300° of access from the trail to the location will be constructed.

- A. Width: 14' maximum.
- B. Maximum grade: 6%.
- C. Turnouts: None.
- D. Drainage design: Follow existing drainage.
- E. Cuts and fills: No major cuts and fills.
- F. Surfacing materials: As is.
- G. Gates, cattleguards or fencecuts: None.

## Location of Existing and/or Proposed Facilities

- A. See Map A. There are no existing wells within a one-mile radius of the proposed well.
- B. Installation of production facilities will be addressed at a later date if the well is a producer.

C. A blooie pit  $15^{\prime}$  x  $20^{\prime}$  x  $10^{\prime}$  deep will be constructed approximately  $150^{\prime}$  from the center hole. A line will be placed on the surface from the center hole to the burn pit. The pit will be fenced on four sides to protect livestock.

## 5. Location and type of water supply

A. Water needed will be hauled to the drillsite by commercial haulers from the Moab area. The water source will be permitted with the Utah State Engineer.

## 6. Source of Construction Materials

A. All construction materials needed for this location will come commercially from the Moab area using access roads shown on Map A.

## 7. Methods for Handling Waste Disposal

- A. Cuttings will be settled out in the reserve pit. The reserve pit will be lined with a minimum 12 mil liner. The pit will be fenced with a 32" 48" woven wire to protect wildlife and domestic animals.
- B. Drilling fluids will be retained in reserve tanks utilizing maximum recirculation during drilling operations. Following drilling, the liquid waste will be evaporated or hauled to an approved disposal site and the pit will be backfilled and returned to natural grade.
- C. In the event fluids are produced, any oil will be retained until sold in tankage and any water produced will be retained until its quality is determined. The quality and quantity of water produced will then determine the necessary disposal procedure.
- D. Sewage will be disposed of in fiber glass insulated holding tanks, which will be placed in the vicinity of the trailers. The sewage will be hauled to an approved disposal site in the Moab area.
- E. Trash will be contained in a portable metal container and hauled periodically to an approved landfill in the Moab area.
- F. After the rig has moved from the wellsite, all waste material will be removed to an approved disposal site.

#### i. Ancillary Facilities

A. Four trailers will be placed on the drilling location to house the tool pusher, drilling rep, mud logger, and geologist. They will be placed approximately as shown on the location layout.

## 9. Wellsite Layout

- A. Four to six inches of topsoil will be removed from the location and stockpiled. Location of mud tanks, reserve and burn pits, pipe racks, living facilities and soil stockpiles are shown on the attachments.
- B. Burn pit will not be lined.
- C. Access to the well pad will be as indicated on Exhibit C.
- D. The location will be bermed to prevent runoff over the edge.

## 10. Plans for Restoration of Surface

- A. All surface areas not required for producing operations will be graded to as near original condition as possible and contoured to maintain possible erosion to a minimum. Any rock encountered in excavation will be disposed of beneath backfill to return surface to its present appearance and provide soil for seed growth.
- B. The topsoil will be evenly distributed over the disturbed areas and reseeded.
- C. Pits and any other area that would present a hazard to wildlife or livestock will be fenced off when the rig is released and removed.
- D. Any oil accumulation on the pit will be removed or overhead flagged as dictated by then existing conditions.
- E. The well will be completed during 1991. Rehabilitation will commence following completion of the well. If the wellsite is to be abandoned, all disturbed areas will be recontoured to the natural contour as is possible.

## 11. Surace Ownership

A. The wellsite and access road will be constructed on State lands. The operator shall contact the Utah Division of Oil, Gas and Mining at (801) 538-5340 between 24 and 48 hours prior to construction activities.

## 12. Other Information

A. The well is located on a promontory of Hatch Point which overlooks the Colorado River drainage to the north and west. Vegetaion consists primarily of juniper trees, bitterbrush, serviceberry, low sagebrush and Mormon tea. The wellsite is devoid of grasses.

Fauna which would inhabit the drainage areas below the wellsite include deer, antelope, rabbits and a variety of burrowing rodents.

- B. Surface use activities in the area are primarily recreational.
- C. A cultural resource inventory has been performed on the wellsite and access road. The area was recommended for clearance.

## 13. Company Representative

Ms. J. F. NewVille P. O. Box 599 Denver, Colorado 80201 (303) 930-3439

I hereby certify that I, or persons under my supervision have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operation proposed herein will be performed by Chevron U.S.A. Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Na to

J. F. NewWill

Environment, Safety, Fire and

Health Manager

Attachments:

Map A - Access to proposed location

Map B - Porposed location and access road

Exhibit C - Location layout, cut and fill

# CHEVRON U.S.A. Inc. ROCKY MOUNTAIN PROD. BUSINESS UNIT DRILLING PROGRAM

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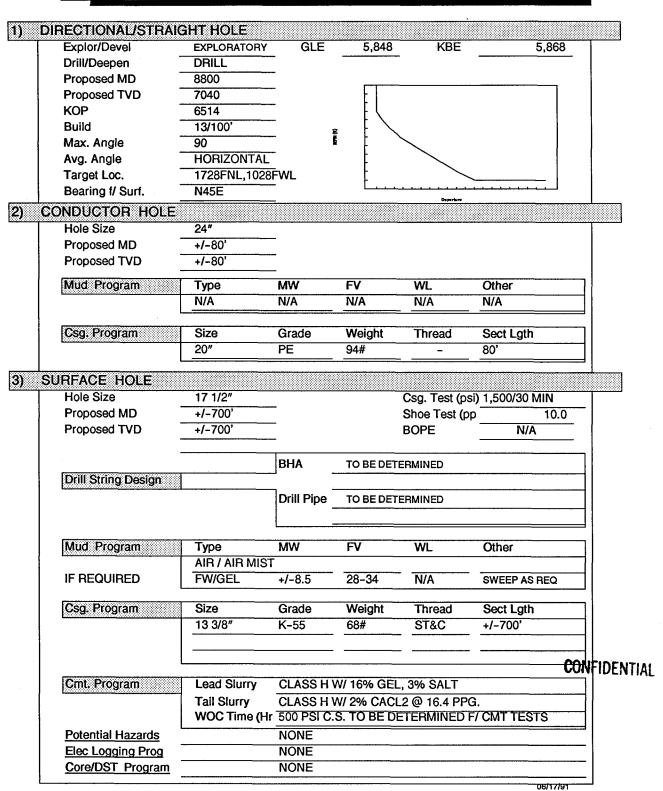
JUN 1 9 1991 Field Rig Type **CANE CREEK - STATE** Well Rig Name CHEVRON 1-36 **DIVISION OF** Location AFE# SEC.36,T27S,R20E | 2442 FEL, 2138 FSL OIL GAS & MINING DIRECTIONAL/STRAIGHT HOLE 1) Explor/Devel **EXPLORATOR** GLE 5,848 KBE 5,868 Drill/Deepen DRILL 7,040 Calculated TVD Calculated MD 8,800 EOB MD 7,326 **EOB TVD** 7040 Horizontal Displ. 2000 **KOP** 6,514 Build DEG/100' 13 Initial Angle 0 Max. Angle 90 120 **Tangent Length** Angle Before Tang. 45 90 Angle After Tang. Avg. Angle HORIZONTAL Target Loc. 1728FNL,1028FEL Bearing f/ Surf. N45E 2) 1'st Build Section Radius 441 ft Vertical Displacement (V1) 312 ft Horizontal Displacement (H1) 130 ft Build Length (L1) 346 ft 3) 2'nd Build Section (Tangent) 441 ft Radius Vertical Displacement (V2) 85 ft Horizontal Displacement (H2) 85 ft Build Length (L2) 120 ft 4) 3'rd Build Section Radius 441 ft Vertical Displacement (V3) 128 ft CONFIDENTIAL Horizontal Displacement (H3) 313 ft **Build Length (L3)** 346 ft ADDITIONAL COMMENTS

17-Jun-91

DHH(91)

## CHEVRON U.S.A. Inc. ROCKY MOUNTAIN PROD. BUSINESS UNIT DRILLING PROGRAM

Field	CANE CREEK - STATE	Rig Type	
Well	CHEVRON 1-36	Rig Name	
Location	SEC.36,T27S,R20E   2442 FEL, 2138 FSL	AFE#	



INTERMEDIATE HOLE				A	-); 4 000
Hole Size	12 1/4"	_		Csg. Test (ps	
Proposed MD	4600	_		Shoe Test (p	
Proposed TVD	4600	ВНА	TO BE DET	BOPE	10M-CLASS IV
Drill String Design	-	المرامل	TO BE BEI	LI WALLIAL	
Dill Othing Design		]	TO DE DET		
		Drill Pipe	TO BE DET	EHMINE	
			·		
	T	MW	FV	WL	Other
Mud Program	Type AIR / AIR MIST		r v	AAL	Other
IF REQUIRED	FW/GEL	8.8PPG	40	NC NC	
ii riegoirieb	- TWOLE	0.0110			
Į.	<del></del>	<del> </del>			
Csg. Program	Size	Grade	Weight	Thread	Sect Lgth
	9 5/8"	N80	47.0	LTC	4600
Cmt. Program	Lood Oliver	CLACCII	WILLIAM OF	E O ONL CALT	
Giii. Fiografii	Lead Slurry Tail Slurry			L & 3% SALT 'ES @ 16.4pp	
	WOC Time (Hr		W ADDITIV	10.4pp	9
Potential Hazards	7700 71110 (711	NA NA			
Elec Logging Prog			CHED FOR	MATION EVA	LUATION PROGRAM
Core/DST Program		NA NA	OILD I OIL	WATION EVA	LOATIONTHOUTAW
<u>ooronoor triogram</u>	<del> </del>				<u> </u>
OIL STRING / LINER H	IOLE				
Hole Size	8 1/2"	_			si) 4,000/FOR 30MIN
Proposed MD	8,800'			Shoe Test (p	·
Proposed TVD	7,040'	_		BOPE	10M-CLASS IV
Dell'Oring Dooles	· · · · · · · · · · · · · · · · · · ·	DITA	TOPED	ETERMINED	
Drill String Design		BHA	IO BE DI	ETERIVINED	<u>-</u>
		Drill Pipe	TO DE DI	ETERMINED	
		Dim ripe	- IO BL DI	LILIWING	
Mud Program	Туре	MW	FV	WL	Other
	OIL INVERT	10-16ppG		5-10	CL2-SAT'D
	012 11112111	10 торра			
					·
	· · · · · · · · · · · · · · · · · · ·				
Csg. Program	Size	Grade	Weight	Thread	Sect Lgth
	7"	N80	26#	LT&C	+/-7,326'
	7" SLOTTED L	INER IN HO	ORIZONTAL	SECTION	+/-1,474'
				TOTAL F1	G 8,800'
_					
#7000700 <u>-</u> 000					CONFIDE
Cmt. Program	Lead Slurry		/ 16% GEL + 3		
	Tail Slurry		// ADDITIVES		
Data di 1111	WOC Time (Hr		EOC 10 9 5/8'	. (284)	
Potential Hazards Elec Logging Prog	HIGH PRESSUR		<b></b>		
HIGH LANGUAGE PEAG	SEE ATTACHED	FORMATION	EVALUATION		i
Core/DST Program	120' CANE CREE		LVALOATION	TIOGNAM	

6)	AUXILIARY	EQUIPME	NT					
	Mud Logg	nina l Init	SPUD		Rotating Head	ര	SPUD	
	Geologra	_	SPUD	-	Degasser		4,600'	
	Visulogge		SPUD	-	Desilter		SPUD	
	Adj. Chok		700'	<del>-</del>	Centrifuge		4,600'	
	PVT & Flo		SPUD	_	Mud Cleaner		4,600'	
	Trip Tank		SPUD	_	H2S Safety Eqpt			
	Other		LOWER KELLY C	- OCK VAL	VES, IBOP, FULL OPE	NING	DP SAFETY VALVE	
			O MATCH DP & I		· · · · · · · · · · · · · · · · · · ·		——————————————————————————————————————	
	<del></del>							
7)	OTHER INF	ORMATIO	N					
								;
	Inspect B			+/-200	Rotating Hours.			
		n Surveys Ev		+/-500'	_Feet. (In Straight Ho	les)		
	Gyro Sun	-	@ 4,600' & PR	***				
		lg. Breaks B	elow	4,600'	Feet For Flow.			
		Pipe Every			Stds. When Runnung	g A Flo	oat.	
	Fill Csg E	very		EVERY	_Jt/Jts. _			
8)	GENERAL I	REMARKS						
	See Attac	ched Informa	tion					
9)	GEOLOGIC	PROGRA	М					
	See Attac	ched Informa	tion					
	Prepar Date	ed by:	JRS <u>06/17/91</u>	_	Drlg. Supt. Date	_		
	<u> </u>							

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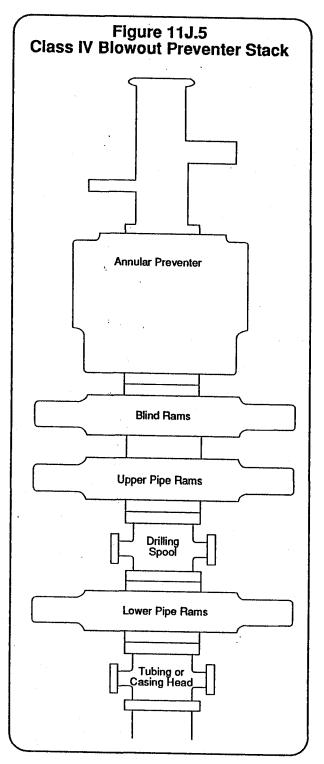
pg. 3 of 3

CONFIDENTIAL



DIVISION OF OIL GAS & MINING

## F. CLASS IV BLOWOUT PREVENTER STACK:



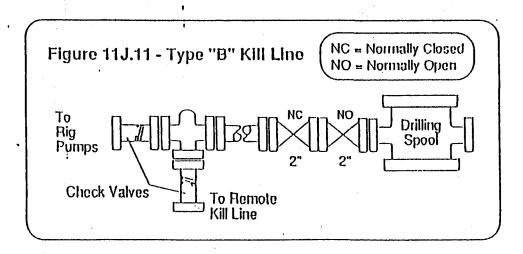
The Class IV preventer stack is designed for drilling or workover operations. It is composed of a single hydraulically operated annular preventer on top, then a blind ram preventer, a single upper pipe ram preventer, a drilling spool, and a single lower pipe ram preventer on bottom. The choke and kill lines are installed onto the drilling spool and must have a minimum internal diameter of 3". All side outlets on the preventers or drilling spool must be flanged, studded, or clamped. An emergency kill line may be installed on the wellhead. A double ram preventer may be used for the blind rams and upper pipe rams in all instances if a drilling spool is being used. If this stack is used in conjunction with a tapered drillstring, a set of variable bore pipe rams should be installed in the upper pipe ram preventer and large pipe rams should be installed in the lower pipe ram preventer. The Class IV blowout preventer stack is shown to the left in Figure 11J.5.

Rev. 1/1/89

## D. TYPE "B" KILL LINE - CLASS III, IV , AND V WELLS

The type B kill line described below in Figure 11J.11 is the minimum recommended hookup for installation on all Class III, Class IV and Class V wells. Specific design features of the type B kill line include: 1'

- 1. The preferred kill line connection to the well is at the drilling spool, however, a preventer side outlet may be used when space restrictions exclude the use of a drilling spool. In all cases, the kill line must be installed below the uppermost blind rams so the well can be pumped into with no pipe in the hole.
- 2. The arrangement includes two 2" (nominal) gate valves installed at the drilling spool and an upstream fluid cross. The outside valve may be hydraulically remote controlled.
- 3. Two pump-in lines should be attached to the fluid cross. The primary kill line should be routed to the rig standpipe where it can be manifolded to the rig pumps. The remote kill line should be run to a safe location away from the rig or to the rig cementing unit. The remote kill line should have a loose end connection for rigging-up a high pressure pumping unit.
- 4.. Both the primary kill line and the remote kill line must include a 2" check valve which is in working condition while drilling. If a check valve is crippled for testing purposes, the Happer or ball must be re-installed and tested before drilling resumes.
- 5. The primary kill line must include a pressure gauge which can display the pump in pressure on the rig floor.
- 16. Any lines which are installed at the wellhead are designated as "emergency kill lines" and should only be used if the primary and remote kill lines are inoperable.



## DRILLING PROGRAM ATTACHHENT

## GENERAL REMARKS

- 1. Applicable Federal and State Regulations will be adhered to during the drilling of this well.
- 2. The drilling rig is to be level and the kelly centered over the hole before drilling operations commence. Check periodically during the drilling of the well to insure the rig stays level.
- 3. Prior to spud insure all toolpushers, drillers and crews are thoroughly familiar with and understand the Chevron procedure for handling well kicks.

In  $\rm H_2S$  environments Chevron's contingency plan for your location is to be read, understood and adhered to. All personnel are to be thoroughly familiar with the use of air packs, the air supply system, locations of air packs and what to do in the event of sour gas to surface.

- 4. Test BOPE before drilling out and every seven days thereafter. Perform low pressure test (200 psi) and high pressure test. High pressure test should be 70% of BOPE working pressure or 70% of burst of last casing string, whichever is less. Record BOP tests on Tour Reports. Notify applicable Federal and State Regulatory Agencies 24 hours in advance of BOPE tests and record notification and names on Tour Reports.
- 5. Do not reuse ring gaskets. Replace with new Rx or Bx ring gaskets.
- 6. Separate full opening safety valves and inside BOP's are required for each size drill pipe in use. Test weekly with BOPE.
- 7. Run full open valve below kelly that can be run in the hole if necessary.

  Do not use this valve as a mud saver sub.
- 8. BOP controls are to remain in the open position during drilling operations.
- 9. Hold pit drills for each crew at least once every seven days and record on Tour Reports.
- 10. On trips fill the annulus before hydrostatic pressure drops 75 psi or every 5 stds of drill pipe, whichever is first. Use trip tanks to measure hole fill-up and monitor at all times.
- 11. Use drill pipe floats at all times unless your supervisor instructs otherwise.
- 12. Have wear ring installed in wellhead before tripping or rotating. Remember to remove wear ring before running casing or when testing BOPE.

- 13. Casing rams are to be installed and bonnets tested on last trip out before running casing.
- 14. Run pilot and thickening time tests with rig mixing water for all cement slurries prior to cementing operations.
- 15. Casing should be tested to 1,500 psi or 0.2 psi/ft., whichever is greater, prior to drilling out and recorded on Tour Reports. Discuss the test pressure with your supervisor and reference DM-49 before testing.
- 16. Drill out slick beneath each casing string. Drill deep enough to bury stabilization to be picked up.
- 17. Do not drill with hardbanded pipe inside of casing.
- 18. Do not run full gauge stabilizers. Run stabilizers 1/16" to 1/8" undergauge.
- 19. When necessary to work pipe, keep pipe moving up and down. Rotating alone is not considered sufficient.
- 20. Install and test full lubricator on all logging runs unless instructed otherwise by supervisor.
- 21. Fully describe damaged or lost equipment on Tour Reports.

## 9. BOP CLOSING EQUIPMENT

## A. General Requirements

The accumulator system and pumps must be of adequate capacity for the IDOP stack in use. The system must holdpressure without leaks or excessive pumping and should maintain enough pressure capacity reserve to close the preventers with the recharging pumps turned off. These pumps are designed to charge the accumulator within a reasonable time period and maintain this charge during preventer operations.

Chevron's design base for surface accumulator capacity is governed by MMS regulation, Order 30 CFR Part 250.56 (d), which states that all blowout preventer systems shall be equipped with:

## Minerals Management Service Sizing Guidelines

"A hydraulic actuating system that provides sufficient accumulator capacity to supply 1.5 times the volume necessary to close and hold closed all BOP equipment units with a minimum (remaining) pressure of 200 psi (1,400 kPa) above the precharge pressure without assistance from the charging system. An accumulator backup system which shall be automatic, supplied by a power source independent from the power source to the primary accumulator charging system, and possess sufficient capacity to close all blowout preventers and hold them closed.

The above stated MMS regulation is equivalent to sizing a 3000 psi accumulator with enough capacity to close the annular and all ram preventers one time, with the pumps out of service, while maintaining a minimum remaining operating pressure of 1500 psi. This equivalence is shown on the next page.

This demanding base using a 50% safety factor is recommended by Chevron because it provides complete replenishment of fluid in "close" lines at the time preventers are activated. The safety factor also allows for loss of fluid capacity due to "interflow" in the four-way valves and possible loss through the packing of the preventer units. A less demanding base is not recommended, but may be used with Class II stacks, provided prior management approval has been obtained. Requirements vary with the size of preventers and are principally controlled by the annular preventer requirements.

Opening/closing volume tables provide the necessary information to calculate individual requirements as to accumulator size needed. Hydraulically operated choice and kill line valves require added fluid capacity. It must be remembered that only one-half to two-thirds of the accumulator bottle is liquid filled when fully charged, depending on the unit.

Rov 1/1/80

## 4. CHOKE MANIFOLDS

## A. GENERAL CHOKE MANIFOLD SPECIFICATIONS

The following general specifications apply to all classes of choke manifold.

- 1. All choke manifold components which may be exposed to well pressure must have a working pressure rating equal to or greater than that of the preventer stack in use.
- 2. Choke manifolds should be placed outside the rig substructure when possible.
- 3. Choke lines should be run in a straight line with a minimum of turns. All turns must be targeted in the direction of flow.
- 4. Choke lines should be securely staked or anchored to reduce vibrations while circulating.
- 5. Blooey lines must not have restricted internal diameters and should vent well clear of the rig.
- 6. All valves must be of full-opening gate valve construction. Low torque ball valves should not be installed.
- 7. All gauges should be rated for drilling service.
- 8. New metal rings are to be used each time a flange is assembled. Flange grooves are to be well cleaned and dry. API RX or BX rings are required. Use of API R rings will not be permitted.

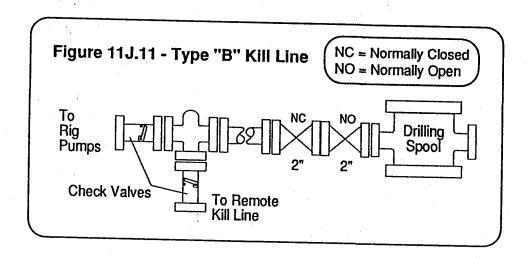
## B. CLASS I CHOKE MANIFOLD

None required

## D. TYPE "B" KILL LINE — CLASS III, IV , AND V WELLS

The type B kill line described below in Figure 11J.11 is the minimum recommended hookup for installation on all Class III, Class IV and Class V wells. Specific design features of the type B kill line include:

- 1. The preferred kill line connection to the well is at the drilling spool, however, a preventer side outlet may be used when space restrictions exclude the use of a drilling spool. In all cases, the kill line must be installed below the uppermost blind rams so the well can be pumped into with no pipe in the hole.
- 2 The arrangement includes two 2" (nominal) gate valves installed at the drilling spool and an upstream fluid cross. The outside valve may be hydraulically remote controlled.
- 3. Two pump-in lines should be attached to the fluid cross. The **primary kill line** should be routed to the rig standpipe where it can be manifolded to the rig pumps. The **remote kill line** should be run to a safe location away from the rig or to the rig cementing unit. The remote kill line should have a loose end connection for rigging-up a high pressure pumping unit.
- 4. Both the primary kill line and the remote kill line must include a 2" check valve which is in working condition while drilling. If a check valve is crippled for testing purposes, the flapper or ball must be re-installed and tested before drilling resumes.
- $5.\$  The primary kill line must include a pressure gauge which can display the pump-in pressure on the rig floor.
- 6. Any lines which are installed at the wellhead are designated as "emergency kill lines" and should only be used if the primary and remote kill lines are inoperable.



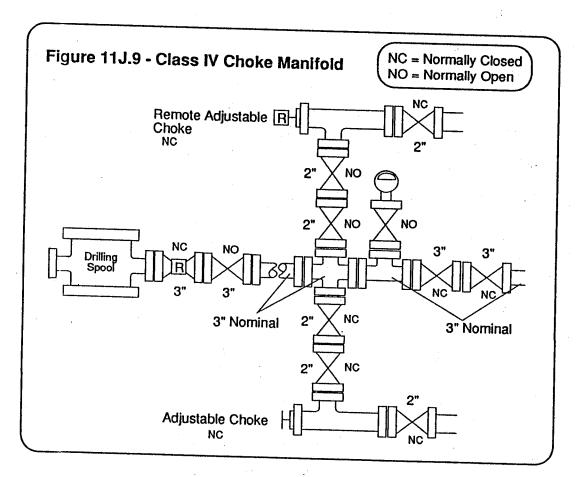
Rev. 1/1/89

# CHEVRON DRILLING REPERENCE SERIES VOLUME ELEVEN WELL CONTROL AND BLOWOUT PREVENTION

## E. CLASS IV CHOKE MANIFOLD

The Class IV choke manifold is suitable for Class IV and Class V workovers and drilling operations. The standard Class IV choke manifold is shown below in Figure 11J.9. Specific features of the Class IV manifold include:

- 1. The manifold is attached either to a drilling spool or to the pipe ram side outlet which would be located imediately above the drilling spool if it was in use.
- 2. The minimum internal diameter is 3" (nominal) for the choke line, choke line valves, manifold cross, and blooey line. The minimum internal diameter is 2" (nominal) for the drilling chokes and for all valves installed within the choke manifold that are not part of the blooey line.
- 3. Includes two 3" steel gate valves in the choke line located at the drilling spool outlet. The inside choke line valve is remotely controlled (HCR).
- 4. Includes one manually adjustable choke and one hydraulically operated choke which are installed on either side of the manifold cross. Two 2" steel isolation gate valves are installed between both chokes and the manifold cross.
- $5. \ \, \text{Includes one 3" blooey line running straight through the cross which is isolated by two 3" steel gate valves.}$



## GEOLOGIC PROGRAM

**CANE CREEK PROSPECT** 

FIELD/AREA:

Cane Creek Anticline

TYPE OF WELL:

Exploration

WELL NAME:

#1-36 Cane Creek State

LOCATION:

Sec. 36-T27S-R20E San Juan County, Utah

SURFACE LOC:

2442' FEL, 2138' FSL

BOTTOMHOLE LOC:

±2000' N45°E; 1100' FEL, 1700' FNL

GR (Ungraded):

5848'

KB (Est):

5868'

TD (TVD):

7150'

FM AT TD:

Penn Paradox Fm, Cane Creek (Cycle 22)

PRIMARY OBJECTIVE:

Cane Creek

**SECONDARY:** 

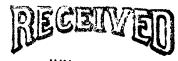
Shallower Paradox Fm. cycles

WIRELINE LOGGING INTERVALS:

DIL-MSFL (Surf to TVD)

Lithodensity (4100' to TVD) Long spaced sonic (4100' to TVD)

8 arm dipmeter (4100' to TVD) MWD - Horizontal section of hole



JUN 1 9 1991

Geologic Program
Cane Creek Prospect

## DIVISION OF OIL GAS & MINING

Formation Tops	Megadon Ensr #3-36 Lion Mesa 36-27S-20E KB 5880'	Est Tops (TVD) Chevron #1-36 Cane Creek 36-27S-20E GR 5848'
TR Kayenta	At surface	At surface
Wingate Ss	Est 50' (+5830)	120′
Chinle Fm	Est 610' (+5270)	680′
Moenkopi Fm	1000' (+4880)	1070′
P Cedar Mesa Ss	≈1319′ (+4561)	1390′
P/P Cutler Fm	~1588′ (+4292)	1660′
P Honaker Trail Fm	2848' (+3032)	2920′
Paradox Fm	4030' (1850)	4100′
Ismay (Cycle 2)	4264' (+1616)	4335′
Desert Creek (C4)	4612' (+1268)	4680′
Akah (Cycle 6)	4834' (+1046)	4905′
Barker Creek (C11)	5600′ ( +280)	5670′
Alkali Gulch (C19)	6430′ ( -550)	6500′
Cane Creek (C22)	6972' (-1092)	7040′
Base Salt	7103′ (-1223)	7175′
Pinkerton Trail Fm	7240' (-1360)	
Molas Fm	7290' (-1410)	TVD (Est) = 7150'
M Leadville Ls	7366' (-1486)	
		2000' Horizontal hole azimuth
	TD 7705' (M)	S45°W

MUD LOGGING PROGRAM:

From conductor pipe ( $\sim 100$  ft) to TD

CONFIDENTIAL

WIRELINE LOGGING PROGRAM:

Vertical Hole: DIL-MSFL-GR; Long Spaced Sonic-GR-CAL; Lithodensity-CNL-GR-CAL; 8-Arm Dipmeter;

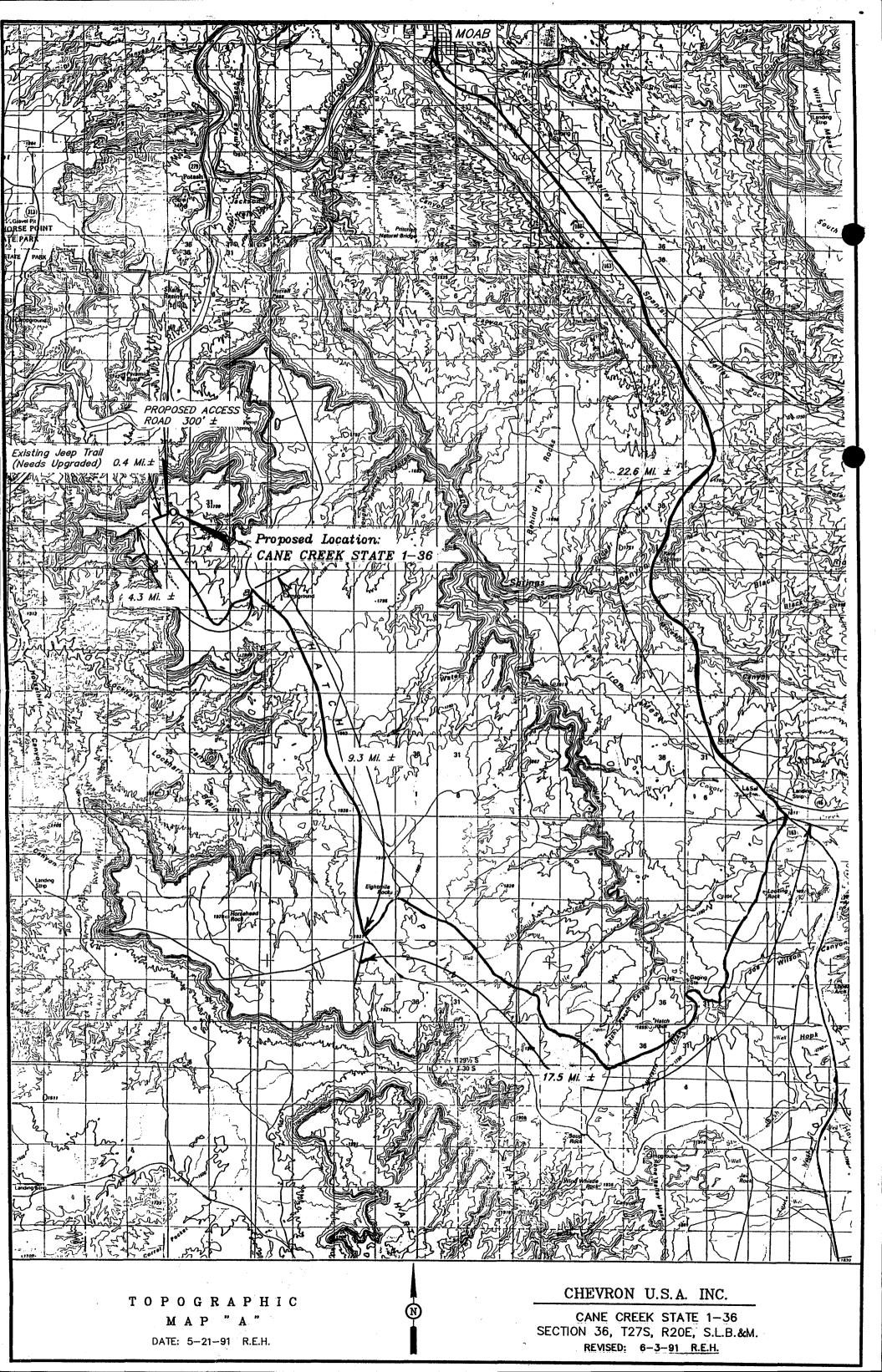
Check Shot Survey

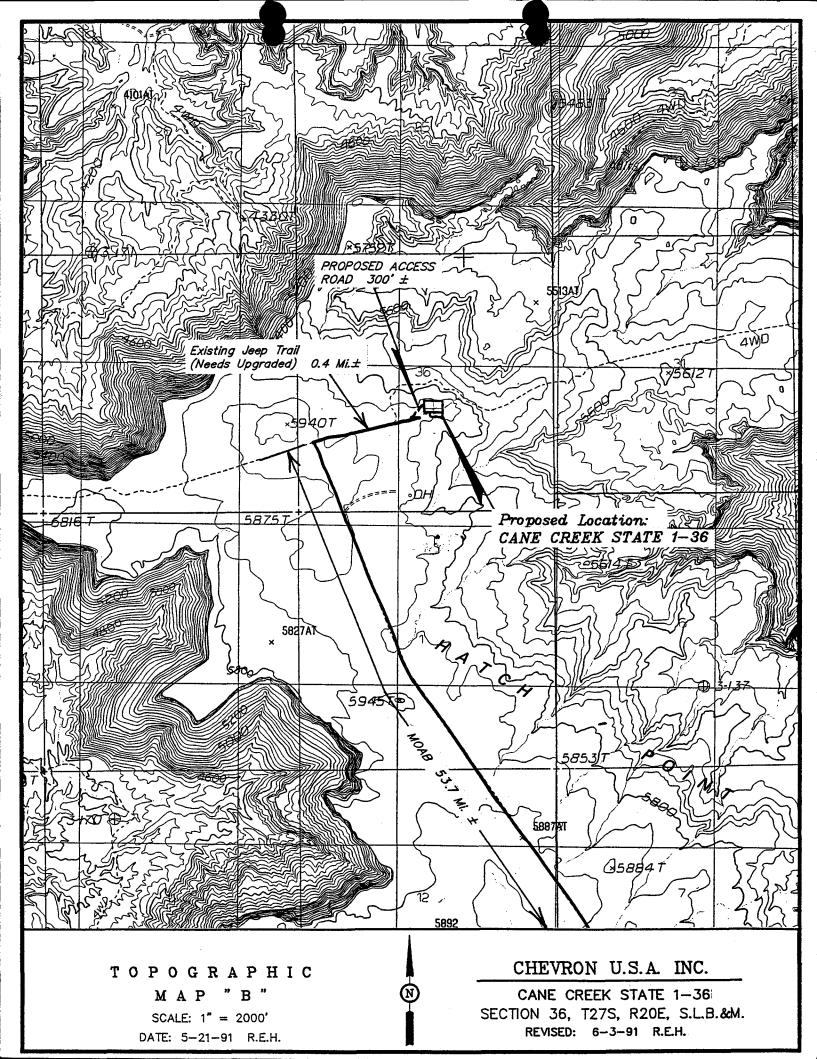
Horizontal Hole: MWD will be run in the lower portion of the vertical hole and the horizontal hole.

1101

CORES/DSTs:

2 - 60 ft cores in the Cane Creek and DSTs will be run if we encounter significant shows.





STANDARD FORM 299(11-83) P.L. 96-487 and Federal Register Notice 6-3-81

## Prescribed by DOI/USDA/DOT APPLICATION FOR TRANSPORTATION AND UTILITY SYSTEMS AND FACILITIES ON FEDERAL LANDS

FORM APPROVED OMB NO. 1004-0060 Expires: May 31, 1986

•		
		FOR AGENCY USE ONLY
NOTE: Before completing and filing the application age and schedule a preapplication meeting processing the application. Each agency means the second	Application Number	
in preparing and processing the application tative, the application can be completed at	. Many times, with the help of the agency represen-	Date filed
1. Name and address of applicant (include zip	2. Name, title, and address of authorized agent	3. TELEPHONE (area code)
code)	if different from Item 1 (include zip code)	Applicant (303) 930-3691
Chevron U.S.A. Inc.		
PO Box 599 Denver, CO 80201	-	Authorized Agent
4. As applicant are you? (check one)	5. Specify what application is for: (check one)	
	a. X New authorization	
a. Individual b. X Corporation *	b. Renew existing authorization No.	•
c. Partnership/Association*	c. Amend existing authorization No	
d. State Government/State Agency	d. Assign existing authorization No	
e. Local Government	e. Existing use for which no authorization	has been received *
f. Federal Agency	f. Other*	
* If checked, complete supplemental page	* If checked, provide details under Item 7	
6. If an individual, or partnership are you a citiz	en(s) of the United States? Yes No	
ume or amount of product to be transported; (stion. (Attach additional sheets, if additional Request right-of-way on existin in the W2 of Sec. 15, T28S, R21 T28S, R21E; then northwesterly	g BLM Hatch Point Road beginning of E, running westerly through Section through Sections 1 and 12, T28S, R2 ading of the road is planned; it wi now exists. The purpose of the rig	f an upgraded county road s 16, 17, and 18, OE to the southwest
8. Attach map covering area and show location		
9. State or local government approval: Atta	ched Applied for X Not required	
10. Nonreturnable application fee: X Atta	ched Not required	
11. Does project cross international boundary or		(If "yes," indicate on map)
12. Give statement of your technical and financial is being requested.	al capability to construct, operate, maintain, and ter	
The Chevron U.S.A. Inc. qualif	ication number is CA-3000.	PECINIVE

JUN 1 9 1991

**DIVISION OF** OIL GAS & MINING

13a.	Describe other reasonable alternative es and modes considered.
	None
b.	Why were these alternatives not selected?
	NA
c.	Give explanation as to why it is necessary to cross Federal lands.
	This is the only existing access. No new surface disturbance.
14.	List authorizations and pending applications filed for similar projects which may provide information to the authorizing agency. (Specify number, date, code, or name.)
	None
15.	Provide statement of need for project, including the economic feasibility and items such as: (a) cost of proposal (construction, operation, and maintenance); (b) estimated cost of next best alternative; and (c) expected public benefits.
	NA
16.	Describe probable effects on the population in the area, including the social and economic aspects, and the rural lifestyles.
	None
17.	Describe likely environmental effects that the proposed project will have on: (a) air quality; (b) visual impact; (c) surface and ground water quality and quantity; (d) the control or structural change on any stream or other body of water; (e) existing noise levels; and (f) the surface of the land, including vegetation, permafrost, soil, and soil stability.
	Increased traffic and noise levels - temporary.
18.	Describe the probable effects that the proposed project will have on: (a) populations of fish, plant, wildlife, and marine life, including threatened and endangered species; and (b) marine mammals, including hunting, capturing, collecting, or killing these animals.
	None
19.	Name all the Department(s)/Agency(ies) where this application is being filed.
	Bureau of Land Management Moab District PO Box 970 Moab, UT 84532
I H	EREBY CERTIFY, That I am of legal age and authorized to do business in the State and that I have personally examined the information stained in the application and believe that the information submitted is correct to the best of my knowledge.
	gnature of Applicant Date Lane 18, 1991
Ti St:	tle 18, U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United ates any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

#### GENERAL INFORMATION ALASKA NATIONAL INTEREST LANDS

This application will be used when applying for a right-of-way, permit, license, lease, or certificate for the use of Federal lands which lie within conservation system units and National Recreation or Conservation Areas as defined in the Alaska National Interest Lands Conservation Act. Conservation system units include the National Park System, National Wildlife Refuge System, National Wild and Scenic Rivers System, National Trails System, National Wilderness Preservation System, and National Forest Monuments.

Transportation and utility systems and facility uses for which the application may be used are:

- 1. Canals, ditches, flumes, laterals, pipes, pipelines, tunnels, and other systems for the transportation of water.
- Pipelines and other systems for the transportation of liquids other than water, including oil, natural gas, synthetic liquid and gaseous fuels, and any refined product produced therefrom.
- 3. Pipelines, slurry and emulsion systems, and conveyor belts for transportation of solid materials.
- 4. Systems for the transmission and distribution of electric energy.
- Systems for transmission or reception of radio, television, telephone, telegraph, and other electronic signals, and other means of communications.
- Improved rights-of-way for snow machines, air cushion vehicles, and all-terrain vehicles.
- Roads, highways, railroads, tunnels, tramways, airports, landing strips, docks, and other systems of general transportation.

This application must be filed simultaneously with each Federal department or agency requiring authorization to establish and operate your proposal.

In Alaska, the following agencies will help the applicant file an application and identify the other agencies the applicant should contact and possibly file with:

Department of Agriculture
Regional Forester, Forest Service (USFS)
Federal Office Building, P.O. Box 1628
Juneau, Alaska 99802
Telephone: (907) 588-7247 (or a local Forest Service Office)

Deportment of Interior
Bureau of Indian Affairs (BIA)
Juneau Area Office, P.O. Box 3-8000
Juneau, Alaska 99802
Telephone: (907) 586-7209

Bureau of Land Management (BLM)
701 C Street, Box 13
Anchorage, Alaska 99513
Telephone: (907) 271-5055 (or a local BLM Office)

National Park Service (NPS)
Alaska Regional Office, 540 West 5th Avenue, Room 202
Anchorage, Alaska 99501
Telephone: (907) 271-4196

U.S. Fish & Wildlife Service (FWS)
Office of the Regional Director
1011 East Tudor Road
Anchorage, Alaska 99503
Telephone: (907) 276-3800

Note-Filings with any Interior agency may be filed with any office noted above or with the: Office of the Secretary of the Interior, Regional Environmental Officer, Box 120, 1675 C Street, Anchorage, Alaska 99513.

Department of Transportation Federal Aviation Administration Alaska Region AAL-4, P.O. 14 Anchorage, Alaska 99513

NOTE - The Department of Transportation has established the above central filing point for agencies within that Department. Affected agencies are: Federal Aviation Administration (FAA), Coast Guard (USCG), Federal Highway Administration (FUWA), Federal Railroad Administration (FRA).

## OTHER THAN ALASKA NATIONAL INTEREST LANDS

Use of this form is not limited to National Interest Conservation Lands of Alaska.

Individual departments/agencies may authorize the use of this form by applicants for transportation and utility systems and facilities on other Federal lands outside those areas described above.

For proposals located outside of Alaska, applications will be filed at the local agency office or at a location specified by the responsible Federal agency.

## SPECIFIC INSTRUCTIONS (Items not listed are self-explanatory)

ltem

- 7 Attach preliminary site and facility construction plans. The responsible agency will provide instructions whenever specific plans are required.
- 8 Generally, the map must show the section(s), township(s), and range(s) within which the project is to be located. Show the proposed location of the project on the map as accurately as possible. Some agencies require detailed survey maps. The responsible agency will provide additional instructions.
- 10, and 12 The responsible agency will provide additional instructions.
- Providing information on alternate routes and modes in as much detail as possible, discussing why certain routes or modes were rejected and why it is necessary to cross Federal lands will assist the agency(ies) in processing your application and reaching a final decision. Include only reasonable alternate routes and modes as related to current technology and economics.
- 14 The responsible agency will provide instructions.
- 15 Generally, a simple statement of the purpose of the proposal will be sufficient. However, major proposals located in critical or sensitive areas may require a full analysis with additional specific information. The responsible agency will provide additional instructions.
- through 18 Providing this information in as much detail as possible will assist the Federal agency(ies) in processing the application and reaching a decision. When completing these items, you should use sound judgment in furnishing relevant information. For example, if the project is not near a stream or other body of water, do not address this subject. The responsible agency will provide additional instructions.

Application must be signed by the applicant or applicant's authorized representative.

If additional space is needed to complete any item, please put the information on a separate sheet of paper and identify it as "Continuation of Item".

SUPPLEMENTAL			
NOTE: The responsible agency(ies) will provide additional instructions.	CHECK APP		
I - PRIVATE CORPORATIONS	ATTACHED	FILED*	
a. Articles of Incorporation			
b. Corporation Bylaws			
c. A certification from the State showing the corporation is in good standing and is entitled to operate within	the		
d. Copy of resolution authorizing filing			
e. The name and address of each shareholder owning 3 percent or more of the shares, together with the num and percentage of any class of voting shares of the entity which such shareholder is authorized to vote the name and address of each affiliate of the entity together with, in the case of an affiliate controlled by entity, the number of shares and the percentage of any class of voting stock of that affiliate owned, directly, by that entity, and in the case of an affiliate which controls that entity, the number of shand the percentage of any class of voting stock of that entity owned, directly or indirectly, by the affiliate	the ctly		
f. If application is for an oil or gas pipeline, describe any related right-of-way or temporary use permit applications, and identify previous applications.	ppli-		
g. If application is for an oil and gas pipeline, identify all Federal lands by agency impacted by proposal.			
II - PUBLIC CORPORATIONS			
a. Copy of law forming corporation		X	
b. Proof of organization			
c. Copy of Bylaws			
d. Copy of resolution authorizing filing			
e. If application is for an oil or gas pipeline, provide information required by Item "I-f" and "I-g" above.			
III - PARTNERSHIP OR OTHER UNINCORPORATED ENTITY			
a. Articles of association, if any			
b. If one partner is authorized to sign, resolution authorizing action is			
Name and address of each participant, partner, association, or other			
oil or gas pipeline, provide information required			
P	heck block mile	a "Filed"	

#### NOTICE

The Privacy Act of 1974 provides ..... you be furnished the following information in connection with information required by this application for an authorization.

AUTHORITY: 16 U.S.C. 310; 5 U.S.C. 301.

PRINCIPLE PURPOSE: The information is to be used to process the application.

ROUTINE USES: (1) The processing of the applicant's request for an authorization. (2) Documentation for public information. (3) Transfer to appropriate Federal agencies when concurrence is required prior to granting a right in public lands or resources. (4)(5) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions.

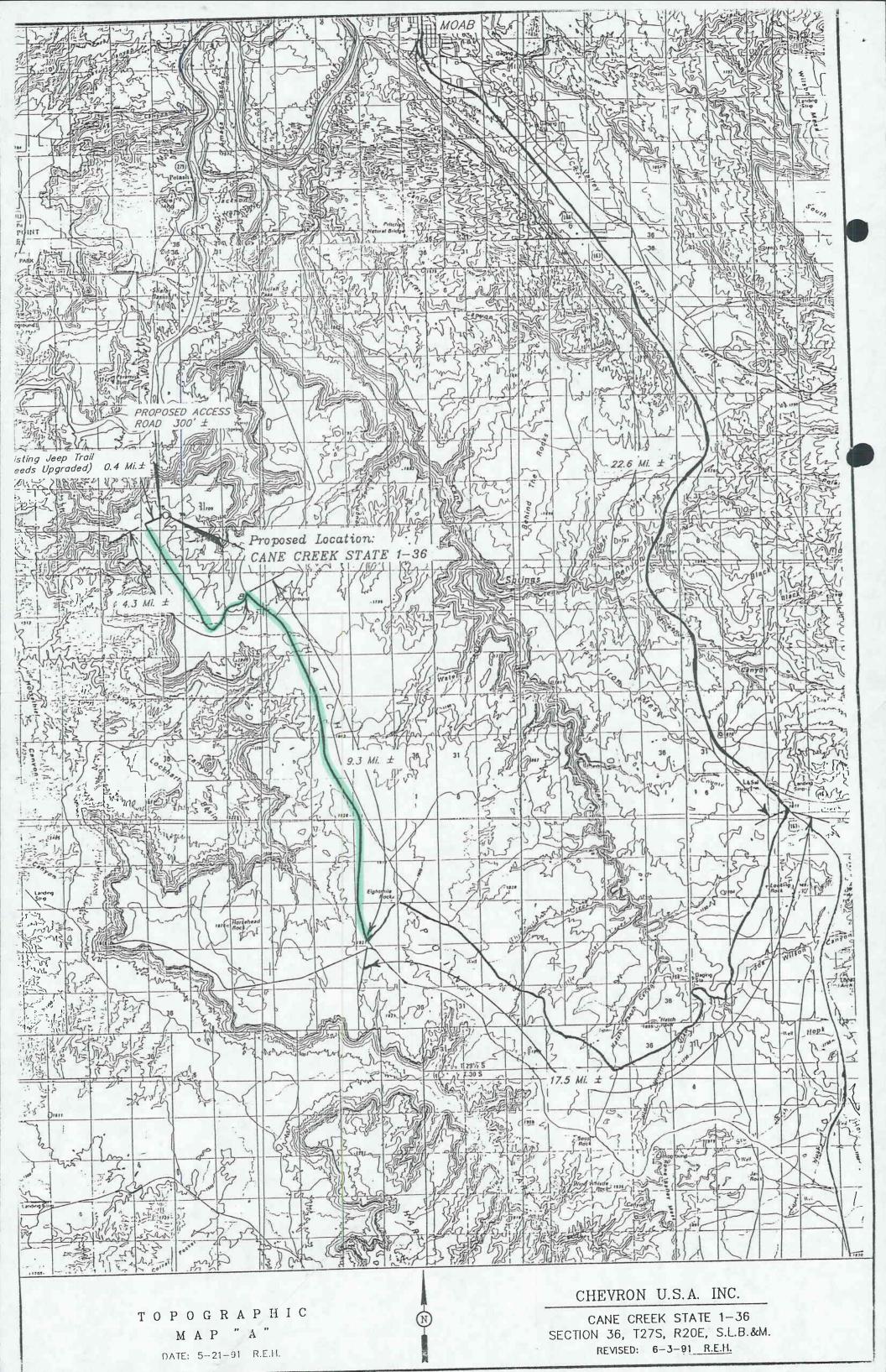
EFFECT OF NOT PROVIDING AND MATION: Disciosure of the information is voluntary. If all the information is not provided, the application may be rejected.

## DATA COLLECTION STATEMENT

The Federal agencies collect this information from applicants requesting right-of-way, permit, license, lease, or certification for the use of Federal lands.

The Federal agencies use this information to evaluate the applicant's proposal.

The public is obligated to respond to this information request if



#### DRILLING LOCATION ASSESSMENT

## State of Utah Division of Oil, Gas and Mining

OPERATOR: CHEVRON U.S.A. INC. WELL NAME: CANE CREEK STATE 1-36

SECTION: 36 TWP: 27S RNG: 20E LOC: 2442 FEL 2138 FSL

QTR/QTR NW/SE COUNTY: SAN JUAN FIELD: WILDCAT

SURFACE OWNER: STATE OF UTAH

SPACING: 460 F SECTION LINE 460 F QTR/QTR LINE 920 F ANOTHER WELL

INSPECTOR: BRAD HILL DATE AND TIME: 5/30/91 14:00

<u>PARTICIPANTS:</u> Frank Matthews-DOGM, Ken Phippen-DWR; Lindell Greer, Elmer Duncan-BLM; Doug Fullmer-State Lands; Don Allred, Kay Labrum-Uintah Engineering; U.F. Dixon, Dale Merrell, Jan Watson, Ed Rubenstein, LeRoy Fyock-Chevron; John Senulis, Jeanne Senulis-SENCO-PHENIX (archeology consultants)

REGIONAL SETTING/TOPOGRAPHY: The proposed location is approximately 12 miles southwest of Moab, Utah and about 5 miles southeast of Deadhorse State Park. It is located on a high flat area adjacent to a canyon rim on the north side of the proposed location. On the south side of the location the ground drops away and into a shallow dry drainage.

### LAND USE:

CURRENT SURFACE USE: Occasional domestic grazing and recreational use.

PROPOSED SURFACE DISTURBANCE: A rectangular pad with dimensions of 400'X 215' and a 240'X 100' extension for the reserve pit will be constructed. A 300' access road will be constructed and existing roads will be upgraded.

AFFECTED FLOODPLAINS AND/OR WETLANDS: None

FLORA/FAUNA: Cliffrose, Juniper, Pinion, Scorpionweed, Ephedra, Larkspur, Blackbrush, Cactus, Yucca, Dock, Cryptogams/Antelope, Deer, Flies, Gnats, Rabbits, Lizards, Birds

#### ENVIRONMENTAL PARAMETERS

## SURFACE GEOLOGY

SOIL TYPE AND CHARACTERISTICS: Silty Sand with abundant rock fragments.

SURFACE FORMATION & CHARACTERISTICS: Kayenta Formation

EROSION/SEDIMENTATION/STABILITY: No active erosion or sedimentation at present. Location should be stable.

PALEONTOLOGICAL POTENTIAL: None observed

#### SUBSURFACE GEOLOGY

OBJECTIVES/DEPTHS: Cane Creek-6,972'

ABNORMAL PRESSURES-HIGH AND LOW: The lower portion of the hole may encounter high pressure zones. (see APD)

CULTURAL RESOURCES/ARCHAEOLOGY: Done by SENCO-PHENIX.

CONSTRUCTION MATERIALS: Onsite materials will be used for construction.

SITE RECLAMATION: To be done as per State Lands instructions.

## RESERVE PIT

CHARACTERISTICS: The reserve pit will be rectangular in shape with dimensions of 240'X 100'X 10'.

LINING: The reserve pit will be lined with a synthetic liner.

MUD PROGRAM: See APD

DRILLING WATER SUPPLY: To be determined.

#### OTHER OBSERVATIONS

A portion of the access road will be on BLM administered lands.

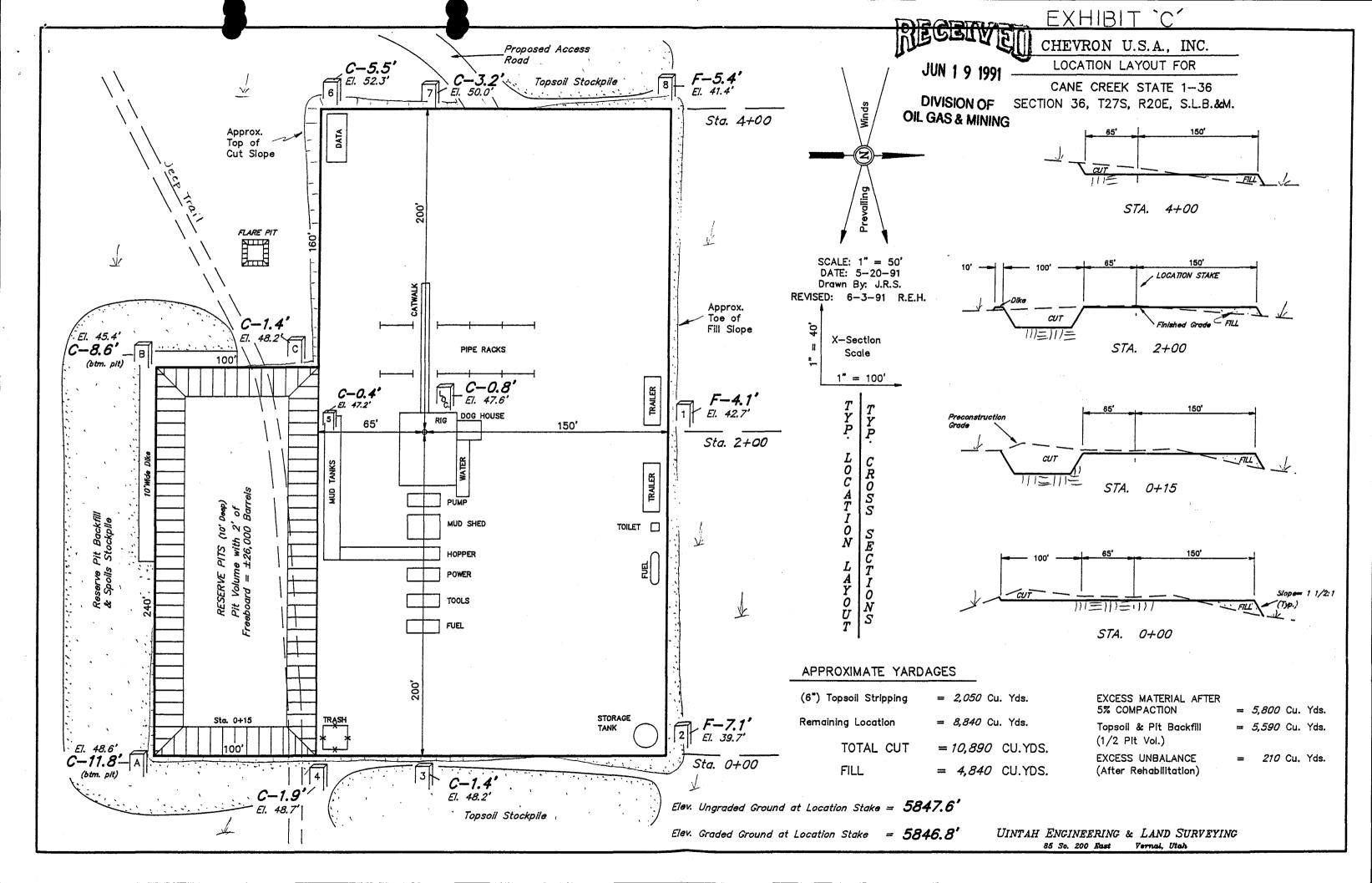
## STIPULATIONS FOR APD APPROVAL

Reserve pit is to be lined with a synthetic liner of 12 mil minimum thickness.

The location is to be bermed to prevent run off from the pad. The Division Of State Lands and Forestry in Moab is to be contacted prior to reclamation work.

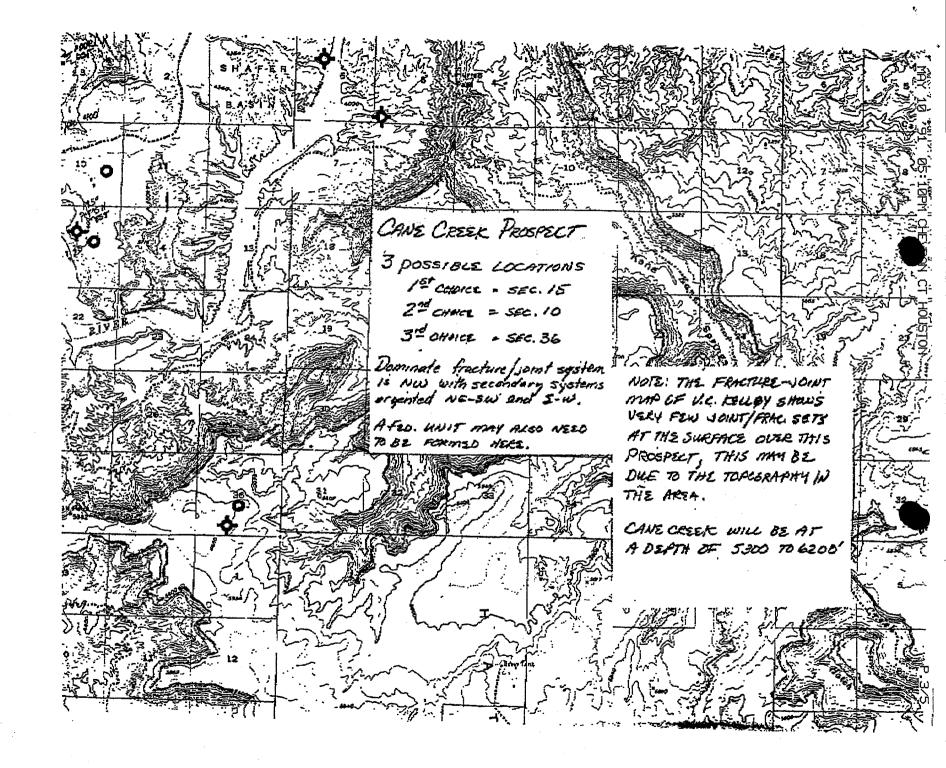
## **ATTACHMENTS**

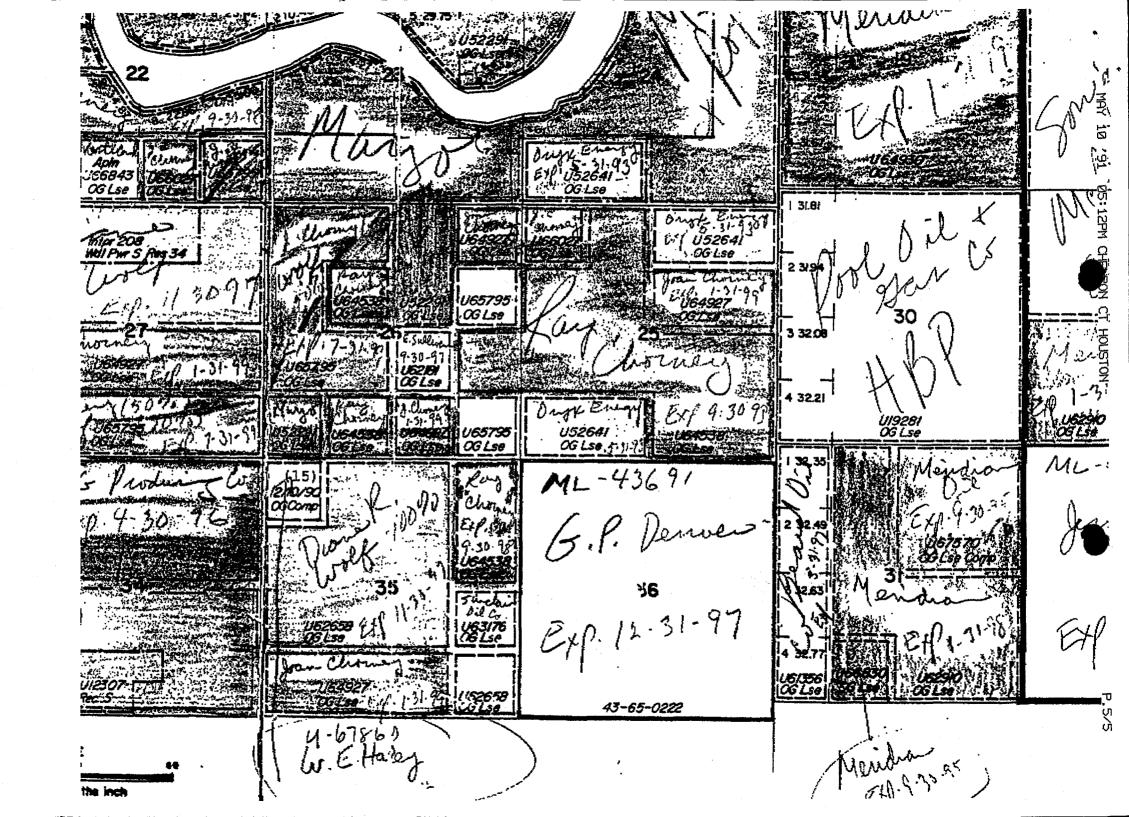
Photographs will be placed on file.



NOTICE OF STAKING	6. Lease Number
(Not to be used in place of	no. 1/2/0/
Application for Permit to Drill Form 3160-3)	ML-4/3691 7. If Indian, Allottee
1. Oil Well [X] Gas Well [ ] Other	or Tribe Name
1. Oil Well [×] Gas Well [ 1 Other (Specify)	
2. Name of Operator:	8. Unit Agreement Name
Chouran 1/5H Tha	
3. Name of Specific Contact Person:	9. Farm or Lease Name
	Mana Annall State
4. Address & Phone No. of Operator or Agent	ane Creek State
4. Address & Phone No. of Operator of Agent	
P.O.Box 599, Denver, Co. 80201 5. Surface Location of Well	#/-36
	Name
Attach: a) Sketch showing road entry onto pad,	Wildont
<ul><li>pad dimensions, and reserve pit.</li><li>b) Topographical or other acceptable</li></ul>	12. Sec., T., R., 11.,
map showing location, access road,	or Bik. and Survey
and lease boundaries.	or Area
	Sec 36, T275 R70F
	Sec. 36, 7275, R2DE 13. County, Parish or
	Borough
	San Tuan
	Son Tuan 14. State
15. Formation Objective(s)   16. Estimated Well	
Depth	
Paradox 7,000'TVD	1 Utob
17. Additional Information (as appropriate; must	include surface owner's
name, address, and telephone number)	
	1
10 Signal Co Sulatery Tit	Sakarinal Pilietant
18. Signed Gin Wallow Tit	E WINNING CASIASION
Date 5/10/9/	
Note: Upon receipt of this Notice, the Bureau o	f Land Management (BLN)
will schedule the date of the onsite pred you accordingly. The location must be set	aled a access road must
be flagged prior to the onsite	Mrs
	) -
Operators must consider the fall by pri-	or to the onsite:
b) Cultural Responded Actinaeology)	
ci rederal Right-May or special use P	ermit
	70

(IMPORTANT: SEE REVERSE SIDE FOR INSTRUCTIONS)





• CONFIDENCE.
CONFIDENTIAL
OPERATOR Chulian U.S.A Vice N-0010. DATE 6.00.91
WELL NAME Care Civer State 1-36
SEC HUSE 36 T DITS R DOF COUNTY Jan Tuan
43.037-31631 State (3) API NUMBER TYPE OF LEASE
CHECK OFF:
PLAT. BOND NEAREST WELL
LEASE FIELD POTASH OR OTL SHALE
PROCESSING COMMENTS:  No other producing wills within Sic 36-0 PA will from Megadon  water Permit  Presite 10-00-91 Geology will be 06-91
ROCC 6-00-91
APPROVAL LETTER:
SPACING: R615-2-3 NA R515-3-2
CAUSE NO. & DATE R615-3-3
STIPULATIONS:  CONFIDENTIAL PERIOD
EXPIRED
1- Water punt reeded
2- Reserve pit to be lined with 12 mil factor Minimum thickness lines,
3. Location is to be begined to prevent runoff from pol.
4. Prior to reclamation work, Contact Wivision of State Land
and Forestry in Most.
5. Seasond læstriction for Derect Bighorn Rut suggest dilling.
18T on me a confessed by Nov. 1.



DIVISION OF WILDLIFE RESOURCES

Norman H. Bangerter Governor

Dee C. Hansen
Executive Director
Timothy H. Provan
Division Director

1596 West North Temple
Salt Lake City, Utah 84116-3195
801-538-4700
801-538-4709 Fax 1596 West North Temple

June 20, 1991



DIVISION OF OIL GAS & MINING

Dr. Dianne R. Nielson, Director Utah Division of Oil, Gas and Mining 355 West North Temple 3 Triad Center, Suite 350 Salt Lake City, UT 84180-1203

Cane Creek State 1-36

Dear Dianne:

Division of Wildlife Resources personnel attended an on-site inspection of the Chevron well location in the Hatch Point area (Sec. 36, T27S, R20E). The Division of Wildlife has the following concerns and comments.

The location of this well is within a half mile of the canyon rim. Areas below the rim can be considered important desert bighorn The sheep use the talus slopes extensively throughout this area. The combination of this site, as well as the Meridian Oil well site (Sec. 33, T27S, R21E), will place considerable pressure on the sheep inhabiting this area and could cause abandonment. Our concerns for this specific location are increased because of the proximity of the site to the rim. In situations where the site is much further from the rim, bighorn sheep issues are reduced dramatically.

We would like to see restrictions placed on the industry to prevent major disruptive operations, such as road construction initiation of drilling activities, taking place during critical periods of wildlife life cycles. Seasonal restrictions should include desert bighorn rut, which is November 1 to December 31. Lambing occurs from April 1 through May 31. These are critical periods in the life cycle of desert bighorn that are important for the continued survival of the species. Future guidelines to consider for peregrine falcons include a buffer zone of one mile radius around any eyrie during the period of February 1 to August 31. This is the period of nesting and incubation.

This specific location is within five miles of two peregrine Peregrine prey, such as western meadowlarks, white-throated swifts and mourning doves, utilize these vegetative communities the pad site and road will remove. The continued loss of the vegetation community could lead to population reductions for these species. This one pad site, in itself, will not impact this habitat dramatically but cumulative impacts from other wells will eventually impact the passerine bird populations.

Dr. Dianne R. Nielson, Director June 20, 1991 Page 2

We continue to be concerned with the potential impacts reserve pits pose to wildlife. If these pits prove to be a hazard, then we expect action will be taken to prevent impacts to wildlife. With two known peregrine falcon eyries located within five miles of this location, our concern is with the potential loss of any individual of this endangered species. Causing the death of a peregrine falcon would be a violation of the Endangered Species Act.

Pronghorn antelope, mule deer and a variety of birds, small mammals and reptiles inhabit the area. The increased traffic along the access roads will increase conflicts for these animals.

We are also concerned with the source of the operator's water. Depletion of springs or surface water will have an impact on wildlife. Water is a limiting habitat feature for all wildlife species in the Hatch Point area. Water taken from the Colorado River is subject to a fee per acre-foot which is paid to the U.S. Fish and Wildlife Service for the continued research and recovery effort of the river's threatened and endangered fish species.

Thank you for the opportunity to provide comments. Your personnel should direct any response you have about our concerns to:

Ken Phippen, Habitat Manager Southeastern Region 455 West Railroad Avenue Price, Utah 84501 Phone: 637-3310

Sincerely,

Timothy H. Provan

Director

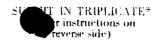
#### STATE ACTIONS

#### Mail to: RDCC Coordinator 116 State Capitol Salt Lake City, Utah 84114

1.	ADMINISTERING STATE AGENCY OIL, GAS AND MINING 355 West North Temple 3 Triad Center, Suite 350							
	Salt Lake City, Utah 84180-1203  3. APPROXIMATE DATE PROJECT WILL START: August 1, 1991							
4.	AREAWIDE CLEARING HOUSE(s) RECEIVING STATE ACTIONS: (to be sent out by agency in block 1) Southeastern Utah Association of Governments							
5.	TYPE OF ACTION: /_/ Lease /X/ Permit /_/ License /_/ Land Acquisition /_/ Land Sale /_/ Land Exchange /_/ Other							
6.	TITLE OF PROPOSED ACTION: Application for Permit to Drill							
7.	DESCRIPTION: Chevron U.S.A. Inc. proposes to drill the Cane Creek State #1-36 well (wildcat) on state lease ML-43691, San Juan County, Utah. This action is being presented to RDCC for consideration of resource issues affecting state interests. The Division of Oil, Gas and Mining is the primary administrative agency in this action and must issue approval before operations commence.							
8.	LAND AFFECTED (site location map required) (indicate county) NW/4, SE/4, Section 36, Township 27 South, Range 20 East, San Juan County, Utah							
9.	HAS THE LOCAL GOVERNMENT(s) BEEN CONTACTED?							
10.	POSSIBLE SIGNIFICANT IMPACTS LIKELY TO OCCUR:  Degree of impact is based on the discovery of oil or gas in commercial quantities.							
11.	NAME AND PHONE NUMBER OF DISTRICT REPRESENTATIVE FROM YOUR AGENCY NEAR PROJECT SITE, IF APPLICABLE:							
12.	FOR FURTHER INFORMATION, CONTACT: 13. SIGNATURE AND TITLE OF AUTHORIZED OFFICIAL  Frank R. Matthews PHONE: 538-5340  DATE: 6-21-91  PetroTeum Engineer							

W0I187

## DEPARTMENT OF NATURAL RESOURCES



	DIVISIO	ON OF OIL, GAS, A	ND MII	IING	5. LEASE I		AND BERIAL NO.
	SUNDRY NOTION (Do not use this form for propose Use "APPLICA"	CES AND REPO			6. IF INDE	AN, ALLOTTE	R OR TRIBE NAME
ī.	OIL X GAS WELL OTHER			·	7. UNIT AG	REEMENT NA	MM
2.	NAME OF OPERATOR				8. FARM O	R LEASE NAD	(1)
	Chevron U.S.A. Inc.				Cane	Creek S	State
3.	ADDRESS OF OPERATOR	<del></del>	. 1		9. WELL N		
	PO Box 599, Denver, CO 8		•		#1-36	•	
4.	LOCATION OF WELL (Report location cle See also space 17 below.) At surface	arly and in accordance v	vith any	State requirements.	10. FIELD Wildo	AND POOL, O	R WILDCAT
	2442' FEL, 2138' FSL				11. smc., 1	r., R., M., OR !	BLE. AND
					AUL	ARET NO LEA	
					1	36, T27	-
14.	PERMIT NO.	15. BLEVATIONS (Show w	hether of,	RT, GR, etc.)	l	Y OR PARISH	1
<u></u>		3040 GK			San Ju	<u>an</u>	Utah
16.	Check Ap	propriate Box To Ind	icate N	ature of Notice, Report, o	or Other Data		
	NOTICE OF INTENT	ION TO:		EUS	SEQUENT SEPORT	of:	
	TIST WATER SHUT-OFF	ULL OR ALTER CASING		WATER SHUT-OFF		REPAIRING V	WELL
	FRACTURE TREAT M	ULTIPLE COMPLETE		FRACTURE TREATMENT		ALTERING C.	ASING
	SHOOT OR ACIDIZE	BANDON*		SHOUTING OR ACIDIZING		ABANDONME	NT*
	REPAIR WELL C	HANGE PLANS		(Other)	14. 4 .141-1		
<u> </u>	(Other)			(Note: Report res Completion or Rec	ompletion Report	and Log for	rm.)
17.	DESCRIBE PROPOSED OR COMPLETED OPER proposed work. If well is direction nent to this work.) *						e of starting any s and zones perti-
	objectives. into the Cane of 2000' from - The well bore	n is revised to: be drilled ver The well will th Creek at approx surface at N45° azimuth of N45° on to maximize t	rtical nen be cimate 'E. 'E may	ly to 7550' TVD to plugged back and oly 7040' TVD for a be adjusted based servoir potential PPROVED BY THE OF UTAH DIVISIONAL, GAS, AND M	evaluate the drilled hor horizontal on the verwhile drile STATE	the Cane rizontal l displa rtical o lling th	ly cement pen e
18	SIGNED	true and correct	LET	echnical Assistant	DAT	· 6/26	5/91
-	(This space for Federal or State offic	e use)					
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	COMPANDALL IS OF APPROVAL, IF A	NY:	ue		DAT	£4	

#### GEOLOGIC PROGRAM

#### CANE CREEK PROSPECT

FIELD/AREA:

Cane Creek Anticline

TYPE OF WELL:

Exploration

WELL NAME:

#1-36 Cane Creek State

LOCATION:

Sec. 36-T27S-R20E San Juan County, Utah

SURFACE LOC:

2442' FEL, 2138' FSL

BOTTOMHOLE LOC:

1100' FEL, 1700' FNL 2000' N45°E

GR (Ungraded):

5848'

KB (Est):

5868'

TD (TVD):

7550'

FM AT TD:

Mississippian Leadville Ls

PRIMARY OBJECTIVE:

Cane Creek

**SECONDARY:** 

Shallower Paradox Fm. cycles

WIRELINE LOGGING INTERVALS:

DIL-MSFL (Surf to TVD)

Lithodensity (4100' to TVD) Long spaced sonic (4100' to TVD) 8 arm dipmeter (4100' to TVD) MWD - Horizontal section of hole

### Geologic Program Cane Creek Prospect

Formation Tops	Megadon Ensr #3-36 Lion Mesa 36-27S-20E KB 5880'	Est Tops (TVD) Chevron #1-36 Cane Creek 36-27S-20E GR 5848'
TR Kayenta	At surface	At surface
Wingate Ss	Est 50' (+5830)	120'
Chinle Fm	Est 610' (+5270)	680'
Moenkopi Fm	1000' (+4880)	1070'
P Cedar Mesa Ss	<b>~</b> 1319′ (+4561)	1390′
P/TP Cutler Fm	<b>~</b> 1588′ (+4292)	1660′
TP Honaker Trail Fm	2848' (+3032)	2920′
Paradox Fm	4030' (+1850)	4100′
Ismay (Cycle 2)	4264′ (+1616)	4335′
Desert Creek (C4)	4612' (+1268)	4680′
Akah (Cycle 6)	4834' (+1046)	4905′
Barker Creek (C11)	5600′ ( +280)	5670′
Alkali Gulch (C19)	6430′ ( -550)	6500' Horizontal horizon is
Cane Creek (C22)	6972' (-1092)	7040' → the Cane Creek -
Base Salt	7103' (-1223)	7175' 2000' horz. hole with
Pinkerton Trail Fm	7240′ (-1360)	7310' an Azimuth of N45°W
Molas Fm	7290' (-1410)	7360' CONFIDENTIA
M Leadville Ls	7366' (-1486)	7440' CONTINE
		TVD (Est.) = 7550'-(vert. hole TD)
	TD 7705' (M)	

MUD LOGGING PROGRAM:

From conductor pipe (~100 ft) to TD

WIRELINE LOGGING PROGRAM:

Vertical Hole: DIL-MSFL-GR; Long Spaced Sonic-GR-CAL; Lithodensity-CNL-GR-CAL; 8-Arm Dipmeter;

Check Shot Survey

Horizontal Hole: MWD will be run in the lower portion of the vertical hole and the horizontal hole.

CORES/DSTs:

2 - 60 ft cores in the Cane Creek and DSTs will be run if we encounter significant shows.



Division Director

# State of Utah DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

355 West North Temple 3 Triad Center, Suite 350 Sait Lake City, Utah 84180-1203 801-538-5340

July 11, 1991

Chevron U.S.A. Inc. P. O. Box 599 Denver, Colorado 80201

#### Gentlemen:

Re: Cane Creek State #1-36 Well, Surf. 2138 feet from the South line, 2442 feet from the East line, NW SE, BHL. 1728 feet from the North line, 1028 feet from the East line, SE NE, Section 36, Township 27 South, Range 20 East, San Juan County, Utah

Approval to drill the referenced well is hereby granted in accordance with Utah Admin. R.615-3-3, subject to the following stipulations:

- 1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water as required by Utah Code Ann. Section 73-3, Appropriation.
- 2. Reserve pit to be lined with 12 mil. minimum thickness liner.
- 3. Location is to be bermed to prevent runoff from pad.
- 4. Prior to reclamation work, contact Division of State Lands and Forestry in Moab.
- 5. Seasonal restriction for Desert Bighorn habitat suggest drilling should be completed by November 1, 1991.

In addition, the following actions are necessary to fully comply with this approval:

- 1. Spudding notification within 24 hours after drilling operations commence.
- 2. Submittal of Entity Action Form 6, within five working days following spudding and whenever a change in operations or interests necessitates an entity status change.
- 3. Submittal of the Report of Water Encountered During Drilling, Form 7.

Page 2 Chevron U.S.A. Inc. Cane Creek State 1-36 July 11, 1991

- 4. Prompt notification in the event it is necessary to plug and abandon the well. Notify R. J. Firth, Associate Director, (Office) (80I) 538-5340, (Home) 571-6068, or J. L. Thompson, Lead Inspector, (Home) 298-9318.
- 5. Compliance with the requirements of Utah Admin. R.6l5-3-20, Gas Flaring or Venting.
- 6. Prior to commencement of the proposed drilling operations, plans for facilities for disposal of sanitary wastes at the drill site shall be submitted to the local health department. These drilling operations and any subsequent well operations must be conducted in accordance with applicable state and local health department regulations. A list of local health departments and copies of applicable regulations are available from the Division of Environmental Health, Bureau of Drinking Water/Sanitation, telephone (80I) 538-6159.
- 7. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-037-31631.

Sincerely,

Associate Director, Oil & Gas

tas

**Enclosures** 

cc: Bureau of Land Management

Division of State Lands

J. L. Thompson

we14/1-4



### State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF STATE LANDS AND FORESTRY

Norman H. Bangerter Governor Dee C. Hansen Executive Director Richard J. Mitchell Division Director

355 West North Temple 3 Triad Center, Suite 400 Salt Lake City, Utah 84180-1204 801-538-5508

July 12, 1991

CERTIFIED MAIL NO. P 879 599 522

J.L. Watson Chevron USA Inc. P.O. Box 599 Denver, CO 80201

Dear Ms. Watson:

RE: Bonding and Designation of Operator forms for Cane Creek State No. 1-36 well. State of Utah Oil, Gas, and Hydrocarbon Lease ML 43691

The Division of Oil, Gas, and Mining has advised this office of their approval of the Cane Creek State No. 1-36 well. A cursory review of Division Bond Records revealed that we currently have no bond in place for Chevron USA Inc., to cover the drilling of the above mentioned well. Additionally, our records show State of Utah Oil, Gas, and Hydrocarbon Lease ML 43691 in the name of Denver G.P.

Prior to the drilling of the well an assignment of interest or Designation of Operator from Denver G.P. will need to be approved by this Division. Also, a State Wide Blanket Bond in the amount of \$80,000 or an Individual Well Bond based on the following well depth will be required:

Well Depth	Bond Amount
0 - 3,000  ft.	\$10,000
3,000 - 10,000 ft.	20,000
Greater than 10,000	40.000

I have enclosed a copy of Division Rules covering bonding, Division Bond Forms and Designation of Operator Forms for your use.

If you have additional question regarding this matter please contact this office.

Sincerely,

EDWARD W. BONNER

MINERALS SECTION MANAGER

tdw

cc: State of Utah
Division of Oil, Gas, and Mining
an equal opportunity employer

# DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL GAS AND MINING



SUNDRY NOTICES AND REPORTS ON WELLS  (Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  (Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.  (T. UNIT AGREEMENT NAME  (T. UNIT AGRE		DIVISION OF OIL, GAS, AND N	MINING  5. LEASE DESIGNATION AND SERIAL NO. ML-43691
Notice of Detailed Operation  1. John of Control of U.S.A. Jac.  1. John of Chevron U.S.A. Jac.  1. John of U.S.A. Jac.  1. Jac. Jac.  1. Jac. Jac.  1. Jac. Jac. Jac.  2. Jac. Jac. Jac.  3. Jac. Jac. Jac.  3. Jac. Jac. Jac.  3. Jac. Jac. Jac.  3. Jac. Jac. Jac. Jac.  3. Jac. Jac. Jac.  3. Jac. Jac. Jac. Jac. Jac. Jac.  3. Jac. Jac. Jac. Jac. Jac. Jac. Jac. Jac	SUNDRY (Do not use this form for Use "A	NOTICES AND REPORTS r proposals to drill or to deepen or plu PPLICATION FOR PERMIT—" for such	ON WELLS
A print of preserver   Chevron U.S.A. Inc.	I. OIL ▼ GAS ▼		
PO Box 599, Denver, CO 80201  1. Occation of will, Report location clearly and in accordance with any State requirements."  1. OFFICE AND FOOL, On Wildcat  1. OFFICE AND FOOL, ON WILL AND  1. OFFICE AND FOOL, ON WILL AN	2. NAME OF OPERATOR		
1. PREMIET NO.  2442' FEL, 1728' FSL  TD 1028' FEL, 1728' FSL  TD 1028' FEL, 1728' FSL  TD 1028' FEL, 1728' FSL  TO 1028'	3. ADDRESS OF OPERATOR		9. WELL NO.
At strates  2442' FEL, 1728' FSL TD 1028' FEL, 1728' FSL TD 1028' FEL, 1728' FSL  13. FERRIT MO.  14. FERRIT MO.  15. Section 3) SURFACE HOLE The following changes have been made in the attached program.  Section 4) INTERMEDIATE HOLE We are changing the Class IV 10M BOPE to a Diverter Hookup including a rotating head. The diverter line will have a minimum I.D. of 6 inches. The 12-1/4" hole section will be drilled with air and this interval is known for lost circulation. Based on these parameters the hole integrity does not warrant a BOPE with shut-in capabilities.  TECHNICAL MORE APPROVED BY JME. STATE  Will a present results of multiple approach of the section will be drilled with air and this interval is known for lost circulation. Based on these parameters the hole integrity does not warrant a BOPE with shut-in capabilities.  Technical APPROVED BY JME. STATE  (This spect for Foderal or State office use)  TITLE  THE TITLE  THE TITLE  TITL			1
Sec. 36, T27S, R20E  14. 782MIT NO.  15. SA46' GR  Check Appropring Box To Indicate Nature of Natice, Report, or Other Data  NOTICE OF INTERPRETA TO:  THAT WATER SECTION THE STATE CASING  NUCLEURA SHOOPOOF  PULL OR ALTER CASING  NUCLEURA COMPLETE  SHOOP OR ACIDITAL CASING  NUCLEURA CA	4. LOCATION OF WELL (Report lo See also space 17 below.) At surface	cation clearly and in accordance with a	27 State requirements. 10. FIRLD AND FOOL, OR WILDCAT Wildcat
14. PERMITY NO.  43-037-31631  15. SAR8' GR  Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data  Notice of Interpretation of Interpre			ARRA DO TRVEDA
Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data  Notice of Inference of Indicate Nature of Notice, Report, or Other Data  Notice of Inference of Indicate Nature of Notice, Report, or Other Data  Notice of Inference of Notice of Inference of Notice, Report, or Other Data  Notice of Inference of Notice of Inference of Notice, Report, or Other Data  Notice of Inference of Notice of Notice, Report, or Other Data  Notice of Notice			
Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data  **NOTICE OF INTENTIOR TO:  **TEST WATER SENUT-OFF**  **PACTURE TREAT**  **PACTURE TREAT**  **SHOOT OR ACTIFIES COMPLETE**  **ARANDON**  **BROTHED BACKBERT FRANT**  **SHOOT OR ACTIFIES COMPLETE**  **ARANDON**  **BROTHED BACKBERT FRANT**  **ARANDON**  **BROTHED BACKBERT FRANT**  **ARANDON**  **A			
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PRACTURE TREAT SHOOT AS ACIDES ARABON* O(Price)  17. DESCRIBE THUMBER OF COMPLETE ARABON* Proposed on Completion of Completion of Recompletion of Report and Log form.)  Propose to change the blowout preventer requirements in the 12½" intermediate hole section 13 SUFFACE HOLE The 13-3/8" casing will be pressure tested to 1000 psi for 30 minuses part of dilling out the float shoe.  Section 4) INTERMEDIATE HOLE We are changing the Class IV 10M BOPE to a Diverter Hookup including a rotating head. The diverter line will have a minimum I.B. of 6 inches. The 12-1/4" hole section will be drilled with air and this interval is known for lost circulation. Based on these parameters the hole integrity does not warrant a BOPE with shut-in capabilities.    III I hereby certify that the foregoing is true and correct SIGNED    TITLE   Technical APPROVED BY THE STATE OIL GAS AMINING APPROVED BY THE STATE OIL GAS AND MINING OIL GA	NOTICE (	P INTENTION TO:	AUBERQUENT REPORT OF:
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(Other)  (Ot		ABANDON®	SHOUTING OR ACIDIZING ASANDONMENT
17. DECRETE PROPORED ON COMPLETED DEPARTIONS (Clearly state all pertinent derails, and give pertinent dates, including serimated date of starting any proposed work. If vell is directionally drilled, give subsurface locations and measured and triu vertical depths for all markers and zones pertinent to this work.)*  Propose to change the blowout preventer requirements in the 12½" intermediate hole section. The following changes have been made in the attached program.  Section 3) SURFACE HOLE  The 13-3/8" casing will be pressure tested to 1000 psi for 30 minutes port of drilling out the float shoe.  Section 4) INTERMEDIATE HOLE  We are changing the Class IV 10M BOPE to a Diverter Hookup including a rotating head. The diverter line will have a minimum I.D. of 6 inches. The 12-1/4" hole section will be drilled with air and this interval is known for lost circulation. Based on these parameters the hole integrity does not warrant a BOPE with shut-in capabilities.  DIVISION OF OIL GAS & MINING  TITLE  Technical APPROVED BY THE STATE OF THE DATE:  OIL, GAS, AND MINING		CHANGE PLANS	None . Pennet results of multiple completion on Well
Propose to change the blowout preventer requirements in the 12½" intermediate hole section. The following changes have been made in the attached program.  Section 3) SURFACE HOLE  The 13-3/8" casing will be pressure tested to 1000 psi for 30 minutes pair of drilling out the float shoe.  Section 4) INTERMEDIATE HOLE  We are changing the Class IV 10M BOPE to a Diverter Hookup including a rotating head. The diverter line will have a minimum I.B. of 6 inches. The 12-1/4" hole section will be drilled with air and this interval is known for lost circulation. Based on these parameters the hole integrity does not warrant a BOPE with shut-in capabilities.  DIVISION OF OIL GAS & MINING  TECHNICAL APPROVED BY THE STATE  TITLE  OIL, GAS, AND MINING  DATE:  DATE:	•	FTER CRURATIONS / Cloudy state all Darrels	and do the state postinger dates including estimated date of starting on
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APPROVED BY TITLE DATE: 7528 9	SIGNED J. S.	OLSON TITLE _	OF UTAH DIVISION OF
	(Ens space for Federal Or		OIL, GAO, AIND MINING
	APPROVED BY		DATE: TOORE

# CHEVRON U.S.A. Inc. ROCKY MOUNTAIN PROD. BUSINESS UNIT DRILLING PROGRAM

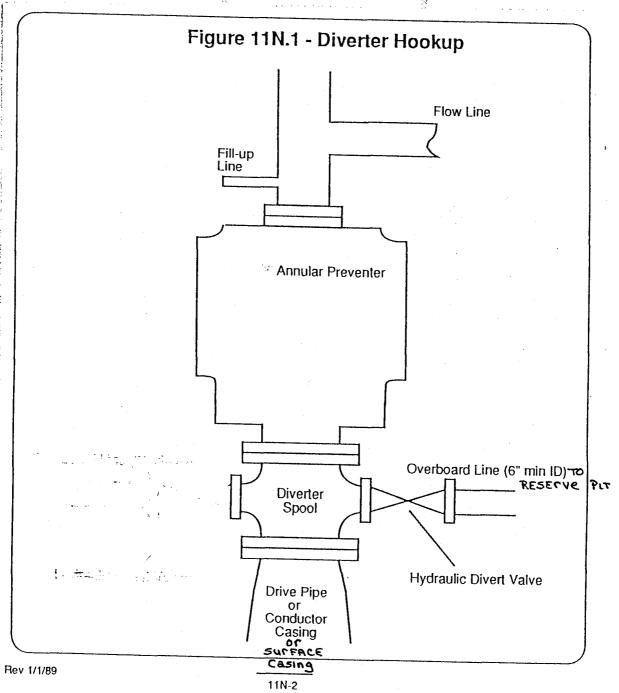
Field	CANE CREEK - STATE	Referenc Revision 1
Well	CHEVRON 1-36	Rig :
Location	SEC.36,T27S,R20E   2442 FEL, 2138 FSL	AFE # :

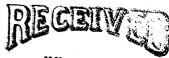
41	DIRECTIONAL/STRAIG	UTUME					
1)	Explor/Devel	EXPLORATORY	GLE	5,848	KBE	5,8 <u>68</u>	
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	KOP	6514	=			*	JUL 2 2 1991
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	Target Loc.	1728FNL,1028	_			(	DIL GAS & MINING
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2)	CONDUCTOR HOLE		-				
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İ	Proposed TVD	+/-80'	-				
	· -		- A RA/			Other	_
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			BHA	TO BE DETE	RMINED		
	Drill String Design						
			Drill Pipe	TO BE DETE	ERMINED		$\exists$
			-				7
	Mud Program	Туре	MW	FV	WL	Other	
		AIR / AIR MIST		***************************************	-		
	IF REQUIRED	FW/GEL	+/-8.5	28-34	N/A	SWEEP AS REQ	
	Csg. Program	Size	Grade	Weight	Thread	Sect Lgth	$\neg  $
		13 3/8"	K-55	68#	ST&C	+/-700'	
							-
							$\exists$
							_
	Cmt. Program	Lead Slurry		N/ 16% GEL	·		_
		Tail Slurry			2 @ 16.4 PPG		<b>⊣</b> 1
	<u> </u>	WOC Time (Hr		9. 10 RF DF	I EKMINED F	/ CMT TESTS	<b>_</b>
	Potential Hazards		NONE				_
	Elec Logging Prog	·····	NONE	,			_
	Core/DST Program		NONE				_1

ERMEDIATE HOLE Hole Size					
	12 1/4"			Coa Toot (no	1 4 000/ 20 min
Proposed MD	4600	<del>-</del>		Shoe Test (ps	4,000/ 30 min.
Proposed TVD	4600	_		BOPE	DIVERTER
	7000	ВНА	TO BE DET		DIVENIEN
Drill String Design					
		Drill Ding	TO DC DC		
		Drill Pipe	TO BE DET	ERMINE	
Mud Program	Туре	MW	FV	WL	Other
	AIR / AIR MIS	T		· · · · · · · · · · · · · · · · · · ·	
F REQUIRED	FW/GEL	8.8PPG	40	NC	
Csg. Program	Size	Grade	Weight	Thread	Sect Lgth
	9 5/8"	N80	47.0	LTC	4600
	000	1100	47.0		+000
	Load Oliver	01.400.11	W// 400/ C=	1 0 00/ 0 1 =	
Cmt. Program	Lead Slurry			L & 3% SALT	
	Tail Slurry WOC Time (H		W ADDITIV	'ES @ 16.4ppg	
Potontial Hanarda	TTOO TILLE (N				
Potential Hazards		NA CEE ATTA	OUED FOR	MATION	
Elec Logging Prog Core/DST Program			CHED FOR	MATION EVAL	UATION PROGRAM
COLENDO I PROGRAM		NA			
STRING / LINER H Hole Size				Csa Test (nsi	) 4 000/FOR 30MIN
Hole Size Proposed MD	8 1/2" 8,800' 7,040'			Csg. Test (psi Shoe Test (pp BOPE	) 4,000/FOR 30MIN N/A 10M-CLASS IV
Hole Size Proposed MD Proposed TVD	8 1/2" 8,800'	   	TO BE DE	Shoe Test (pp BOPE	N/A
Hole Size Proposed MD Proposed TVD	8 1/2" 8,800'	   BHA	TO BE DE	Shoe Test (pp	N/A
Hole Size Proposed MD Proposed TVD	8 1/2" 8,800'	BHA Drill Pipe		Shoe Test (pp BOPE	N/A
Hole Size Proposed MD Proposed TVD  Drill String Design	8 1/2" 8,800' 7,040'	Drill Pipe	TO BE DE	Shoe Test (pp BOPE TERMINED	N/A 10M-CLASS IV
Hole Size Proposed MD Proposed TVD Drill String Design	8 1/2" 8,800' 7,040'	Drill Pipe	TO BE DE	Shoe Test (pp BOPE TERMINED TERMINED WL	N/A 10M-CLASS IV
Hole Size Proposed MD Proposed TVD  Drill String Design	8 1/2" 8,800' 7,040'	Drill Pipe	TO BE DE	Shoe Test (pp BOPE TERMINED	N/A 10M-CLASS IV
Hole Size Proposed MD Proposed TVD Drill String Design	8 1/2" 8,800' 7,040'	Drill Pipe	TO BE DE	Shoe Test (pp BOPE TERMINED TERMINED WL	N/A 10M-CLASS IV
Hole Size Proposed MD Proposed TVD Drill String Design	8 1/2" 8,800' 7,040'	Drill Pipe	TO BE DE	Shoe Test (pp BOPE TERMINED TERMINED WL	N/A 10M-CLASS IV
Hole Size Proposed MD Proposed TVD  Drill String Design  Mud Program	8 1/2" 8,800' 7,040' Type OIL INVERT	Drill Pipe  MW  10-16ppg	TO BE DE	Shoe Test (pp BOPE TERMINED TERMINED WL 5-10	Other CL2-SAT'D
	8 1/2" 8,800' 7,040'  Type OIL INVERT	Drill Pipe  MW  10-16ppg  Grade	FV 40-60 Weight	Shoe Test (pp BOPE  TERMINED  WL  5-10  Thread	Other CL2-SAT'D  Sect Lgth
Hole Size Proposed MD Proposed TVD  Drill String Design  Mud Program	8 1/2" 8,800' 7,040'  Type OIL INVERT  Size 7"	Drill Pipe  MW  10-16ppg  Grade N80	FV 40-60 Weight 26#	Shoe Test (pp BOPE  TERMINED  WL  5-10  Thread  LT&C	Other CL2-SAT'D  Sect Lgth +/-7,326'
Hole Size Proposed MD Proposed TVD  Drill String Design  Mud Program	8 1/2" 8,800' 7,040'  Type OIL INVERT	Drill Pipe  MW  10-16ppg  Grade N80	FV 40-60 Weight 26#	Shoe Test (pp BOPE  TERMINED  WL 5-10  Thread LT&C SECTION	Other CL2-SAT'D  Sect Lgth +/-7,326' +/-1,474'
Hole Size Proposed MD Proposed TVD  Drill String Design  Mud Program	8 1/2" 8,800' 7,040'  Type OIL INVERT  Size 7"	Drill Pipe  MW  10-16ppg  Grade N80	FV 40-60 Weight 26#	Shoe Test (pp BOPE  TERMINED  WL  5-10  Thread  LT&C	Other CL2-SAT'D  Sect Lgth +/-7,326' +/-1,474'
Hole Size Proposed MD Proposed TVD Drill String Design  Mud Program	8 1/2" 8,800' 7,040'  Type OIL INVERT  Size 7"	Drill Pipe  MW  10-16ppg  Grade N80	FV 40-60 Weight 26#	Shoe Test (pp BOPE  TERMINED  WL 5-10  Thread LT&C SECTION	Other CL2-SAT'D  Sect Lgth +/-7,326' +/-1,474'
Hole Size Proposed MD Proposed TVD  Drill String Design  Mud Program  Csg. Program	8 1/2" 8,800' 7,040'  Type OIL INVERT  Size 7" 7" SLOTTED I	Drill Pipe  MW  10-16ppg  Grade  N80  LINER IN HO	FV 40-60  Weight 26# DRIZONTAL	Shoe Test (pp BOPE  TERMINED  TERMINED  WL  5-10  Thread  LT&C  SECTION  TOTAL FTG	Other CL2-SAT'D  Sect Lgth +/-7,326' +/-1,474'
Hole Size Proposed MD Proposed TVD  Drill String Design  Mud Program  Csg. Program	8 1/2" 8,800' 7,040'  Type OIL INVERT  Size 7" 7" SLOTTED I	Drill Pipe  MW  10-16ppg  Grade  N80  LINER IN HO	TO BE DE  FV  40-60  Weight 26#  DRIZONTAL	Shoe Test (pp BOPE  TERMINED  TERMINED  WL 5-10  Thread LT&C SECTION TOTAL FTG	Other CL2-SAT'D  Sect Lgth +/-7,326' +/-1,474'
Hole Size Proposed MD Proposed TVD  Drill String Design  Mud Program  Csg. Program	8 1/2" 8,800' 7,040'  Type OIL INVERT  Size 7" 7" SLOTTED I	Drill Pipe  MW  10-16ppg  Grade  N80  LINER IN HO  CLASS H WA  CLASS-H WA	TO BE DE  FV  40-60  Weight 26#  DRIZONTAL	Shoe Test (pp BOPE  TERMINED  TERMINED  WL 5-10  Thread LT&C SECTION TOTAL FTG	Other CL2-SAT'D  Sect Lgth +/-7,326' +/-1,474'
Hole Size Proposed MD Proposed TVD  Drill String Design  Mud Program  Csg. Program	8 1/2" 8,800' 7,040'  Type OIL INVERT  Size 7" 7" SLOTTED I	Drill Pipe  MW  10-16ppg  Grade  N80  LINER IN HO  CLASS H W/ CLASS-H W/ 12 (CMT F/E)	TO BE DE  FV  40-60  Weight 26#  DRIZONTAL	Shoe Test (pp BOPE  TERMINED  TERMINED  WL 5-10  Thread LT&C SECTION TOTAL FTG	Other CL2-SAT'D  Sect Lgth +/-7,326' +/-1,474'
Hole Size Proposed MD Proposed TVD  Drill String Design  Mud Program  Csg. Program	8 1/2" 8,800' 7,040'  Type OIL INVERT  Size 7" 7" SLOTTED I	Drill Pipe  MW  10-16ppg  Grade  N80  LINER IN HO  CLASS H WO  CLASS-H WO  12 (CMT F/E)	TO BE DE  FV  40-60  Weight 26# DRIZONTAL  16% GEL + 30  7 ADDITIVES ©	Shoe Test (pp BOPE  TERMINED  TERMINED  WL 5-10  Thread LT&C SECTION TOTAL FTG  % SALT  16.4ppg CSG)	Other CL2-SAT'D  Sect Lgth +/-7,326' +/-1,474'

6)	AUXILIARY EQUIPME	NT					
	Mud Logging Unit	SPUD		Rotating Head	ക	700'	
	Geolograph	SPUD	-	Degasser	_	4,600'	!
	Visulogger	SPUD	-	Desilter		SPUD	
	Adj. Choke	700'	-	Centrifuge		4,600'	
	PVT & Flowmeter	SPUD	_	Mud Cleaner		4,600'	
	Trip Tank	SPUD	-	H2S Safety Eqpt		N/A	
		LOWER KELLY C	- OCK VAL	VES, IBOP, FULL OPEN			
		O MATCH DP & D					
7)	OTHER INFORMATION	<u>N</u>					
	1						
	Inspect BHA After		+/-200	_Rotating Hours.	_		
	Inclination Surveys Ev	-	+/-500'	Feet. (In Straight Hole	s)		
	Gyro Surveys	@ 4,600' & PRI			<u> </u>		
	Ckeck Drlg. Breaks Be	∌low	4,600'	Feet For Flow.			
	Fill Drill Pipe Every		30	_Stds. When Runnung	A Flo	oat.	
	Fill Csg Every		EVERY	_Jt/Jts. _			
8)	   GENERAL REMARKS						
	Well will be drilled to 7550		a the Cane	Crook			T T
	Then plugged back and dr				40 # <sup>1</sup>	TVD	
	Thom plugged back and di	med Horizontally I	into the Ca	ine Creek at approx. 70	40 IL	140	
9)	GEOLOGIC PROGRAI	VI					
	See Attached Informat	tion					
							İ
						467	
	Prepared by:	JRS		Drlg. Supt.	H	Lucasor	
	Date	07/11/91	-	Date	0	11/24/191	
			-				
	l						ı

DHH(91)





JUL 2 2 1991

DIVISION OF OIL GAS & MINING



Norman H. Bangerter, Governor Dee C. Hansen, Executive Director Robert L. Morgan, State Engineer

Southeastern Area • 453 S. Carbon Avenue • P.O. Box 718 • Price, UT 84501-0718 • 801-637-1303



JUL 2 2 1991

July 19, 1991

DIVISION OF OIL GAS & MINING

Cecil J. Fowler Sr. P.O. Box 2204 Kirtland, New Mexico 87417

Re: Temporary Change Application t91-05-06

1) Kane Creek State #1-36 Well - NW4SE4 Section 36, T27S, R20E, SLB&M 43-037-31631

2) Shay Graben #1-27 Well - NE4SW4 Section 27, T31S, R22E, SLB&M

Expiration Date: July 18, 1992

Dear Mr. Fowler:

The above referenced Temporary Change Application is hereby approved, and a copy is enclosed for your information and records.

If you have any questions, please feel free to contact me.

Sincerely,

Mark P. Page Area Engineer

cc: Tammy Searing - Division of Oil, Gas & Mining

Billy Hass - Aable Trucking

Chevron USA, Inc.

Enclosures MPP/mjk

### APPLICATION FOR TEMPOLETER OF WATER Rec. by

MAY 2 4 1991

Fee Paid \$\_

JUL 2 2 1991

STATE OF UTA

Receipt #\_ ER RIGHTSMicrofilmed\_

**DIVISION OF** 

PRICE

Roll #\_

For the purpose of obtaining permission to make a temporary change of water in the State of Utah, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of Section 73-3-3 Utah Code Annotated 1953, as amended.

	*WATER RIGHT NO. 05 - Area *APPLICATION NO. t 91 - 05 - 06
	Changes are proposed in (check those applicable)
	point of diversion. X place of use. X nature of use. X period of use.
1.	OWNER INFORMATION
	Name: Cecil J. Fowler Sr. *Interest: 100 %
	Address: P.O. Box 2204
	City:State: New Mexico Zip Code: 87417
2.	*PRIORITY OF CHANGE: July 19, 1991 *FILING DATE: July 19, 1991
	*Is this change amendatory? (Yes/No): No
3.	RIGHT EVIDENCED BY: 05-96 (A24672) Cert. #5799
0.	ANOMI BYIDENGED DI. OO 20 (NETO/E) SET C. #3733
	Prior Approved Temporary Change Applications for this right: Six
* * .	**************************************
	· · · · · · · · · · · · · · · · · · ·
4.	
5.	SOURCE:Underground Water Well
6.	COUNTY: San Juan
7.	POINT(S) OF DIVERSION:
	N. 2738 ft. & E. 1213.5 ft. from SW Cor. Sec. 11, T30S, R23E, SLB&M.
	Description of Diverting Works 6 inch diameter well 070 feet Jan
	Description of Diverting Works: 6-inch diameter well, 972 feet deep
8.	POINT(S) OF REDIVERSION
	The water has been rediverted from at a point:
	Description of Diverting Works:
9.	POINT(S) OF RETURN  The amount of water consumed in 0, 202 at a second s
	The amount of water consumed is 0.292_cfs orac-ft.
	The amount of water returned is cfs or ac-ft.
	The water has been returned to the natural stream/source at a point(s):

<sup>\*</sup>These items are to be completed by the Division of Water Rights.

10.	NATURE AND PER	RIOD OF US						
~	Irrigation:	From March 1 to Nove	mber 1					
	Stockwatering:	From March 1 to Nove	mber 1	ISIEGIZIUV,				
	Domestic:	From to						
	Municipal:	From to		1111 0 0 1000				
	Mining:	Fromto		JUL 2 2 1991				
	Power:	From to						
	Other:	From to		DIVISION OF				
	Brinnoon Alvo Di			OIL GAS & MINING				
11.	PURPOSE AND EX							
	frigation:	acres. Sole supply of _	acres.					
		mber and kind): 5 Horses						
		families and/or Persons.						
	Municipal (name):							
	Oran min ad		Mining District in the	Min				
	Ores mined: _							
	Other (describe)	:	Type:_	Capacity:				
	Omer (describe): _							
12.	PLACE OF USE							
	· · ·	of place of use by 40 acre tract(	s): SW4NW4 Sec. 11, T30	DS, R23E, SIB&M				
13	STORAGE							
15.			Change D. 1.1.1					
	Capacity.	noft Inundated Area	Storage Period: from	1 to				
	Capacity: ac-ft. Inundated Area: acres.  Height of dam: feet.							
	Local description	IUUI.						
	regai description (	of inundated area by 40 tract(s)	:					
* * *	*****	***** THE FOLLOWING C	CHANGES ARE PROPOSED	**********				
				•				
14.	COURCE Undo	TER: cfs and	$d/or \underline{10.0}$ ac-ft.					
15.		rground Water Well						
1.0	Datalice of the Wat	er Will be abandoned:	, or will be used as	s heretofore: X				
10.	BOINTY:	Juan	Pilote Maria de Caración de Ca					
17.	Samo as Hono	tofono	-					
	Salle as here	Lorore						
	Description of Div	erting Works: Same as H	arata fara					
	*COMMON DECCE	RIPTION: 11 miles SW o	ef 1 2 2 2 1	Candata D. O. I				
	COMMON DESCR	IPTION:II IIITES SA O	Lasat	Sandstone Draw Quad				
18.	POINT(S) OF REDI	VERSION						
	The water will be	rediverted from		at a naint				
		A CONTRACT OF THE CONTRACT OF	State of the State	at a point:				
	Description of Div	erting Works:						
19.	POINT(S) OF RETU	-						
	The amount of war	ter to be consumed is	$\_$ cfs or $\_\_$ 10.0 ac-ft.	•				
	The amount of war	ter to be returned is	cfs orac-ft.					
	The water will be	eturned to the natural stream/	source at a point(s):					

20.5	NATURE AND PERI	IOD OF USE						
	Irrigation:	From/	to/					
	Stockwatering:	From/				Table Care	State of the second	
	Domestic:	From//_	to/			IN BUBL	. Was a second	
	Municipal:	From//_	to/					
	Mining:	From//_	to/			JUL 22	1991	
	Power:	From/	to/_	/			1091	
	Other:	From 7 / 19/	91 to 7 / 1	18/ 92	·	DIVISION OIL GAS & M	OF Ining	
21.	PURPOSE AND EXT							
	Irrigation:							
	Stockwatering (nur	mber and kind): $\_$						
	Domestic:							
	Municipal (name):							
	Mining:			Mining D	istrict at the $\_$		Mine.	
	Ores mined:						·····	
	Power: Plant name:	Funlameta du			Type:	Capacity:		
	Other (describe): _	exploratory or	riiing, aus	st suppres	sion			
22.	PLACE OF USE							
	Legal description of place of use by 40 acre tract(s):							
	1) Kane Creek State #1-36: N. 2138 ft. & W. 2442 ft. from SE Cor. Sec. 36, T27S, R20E,							
	SLB&M (NW <sup>1</sup> 4	íSE⅓).					· 12/3; 1(20L)	
	2) Shay Grabe	en. #1-27: N. 2	433 ft. & E	E. 2019 ft	. from SW	Cor. Sec. 27, T3	1S. R22F.	
	2LB&M (NF4	íSW⅓).						
23.	STORAGE							
	Reservoir Name:			Stora	ge Period: fron	n to	<del>-</del>	
	Capacity:	ac-ft. Inu	ndated Area: .	acres	i <b>.</b>			
	Height of dam:					i .		
	Legal description o	d inundated area b	y 40 tract(s): _	······································				
			1-1-1-1					
24.	EXPLANATORY							
	The following is set forth to define more clearly the full purpose of this application. Include any supplemental							
	water rights used for the same purpose. Use additional pages of same size if necessaryl:							
	The water will be hauled by Aable Trucking of Moab, Utah for Chevron USA, Inc.							
	Used supplementally with 05-2369, 05-2371, 05-2372, 09-1768.							
				****				
		******	*****	*****	* * * * * * * * * * *	*****	* * * * * * *	
	The undersigned he	ereby acknowledge	es that even th	Ough he/she	they may have	e been assisted in the	nrongratio-	
	of the above-number	ered application the	hrough the co	urtesy of the	employees of	the Division of Wate ne time of filing, res	r Rights, all	
	responsibility for tapplicant(s).	the accuracy of the	ne intormatio	n contained	herein, at th	ne time of filing, res	ts with the	
	- · · · · · · · · · · · · · · · · · · ·			6-0	0 70			

Signature of Applicant(s)

#### STATE ENGINEER'S ENDORSEMENT

TEMPORARY CHANGE APPLICATION NUMBER: t91-05-06

1. July 19, 1991

Change Application received by MP.

2. July 19, 1991

Application designated for APPROVAL by MP.

3. Comments:

#### Conditions:

This application is hereby APPROVED, dated July 19, 1991, subject to prior rights and this application will expire on July 18, 1992.

Mark Page, Area Engineer

for

Robert L. Morgan, State Engineer

JUL 2 2 1991

DIVISION OF OIL GAS & MINING

#### RECEIVED

July 22, 1991

JUL 3 0 1991

WATER RIGHTS PRICE

RATTLESNAKE RANCH hereby authorizes RDB TRUCKING, INC. to haul water for CHEVRON USA, INC. Project at Location KANE CREEK STATE 1-36, Section 36 TW 27 S- R 20 E

Permit # 838305-570

Jan Blankeyell



Southeastern Area • 453 S. Carbon Avenue • P.O. Box 718 • Price, UT 84501-0718 • 801-637-1303

July 31, 1991

Division of Oil, Gas & Mining Attn: Tammy Searing 355 West North Temple 3 Triad Center, Suite 350 Salt Lake City, Utah 84180-1203

Re: 1) Meridian Oil Inc.
Federal #22-**3**3H - Section 33, T27S, R21E, SLB&M - 13 - 037 - 31630

2) Chevron USA Inc. Kane Creek State #1-36 - Section 36, T27S, R20E, SLB&M 43-037-31631

#### Dear Tammy:

Enclosed is the authorization for the use of the water under file #05-570 (D838), held by Norma P. Blankenagel of LaSal, Utah. The water will be hauled to each of these wells by RDB Trucking Inc.

No further authorization with reference to a water right will be needed by this office. If you have any questions concerning the enclosed, please feel free to contact me.

Sincerely,

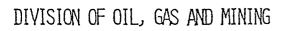
Mark P. Page Area Engineer

Enclosures MPP/mjk

BECINIVE.

AUG 0 1 1991

DIVISION OF OIL GAS & MINING



API NO. 43-037-31631

### SPUDDING INFORMATION

NAME OF COMPANY: <u>CHEVRON U.S.A</u>	. INC.	•		<b>.</b> .
WELL NAME: CANE CREEK ST.	ATE 1-36			
SECTION NWSE 36 TOWNSHIP 278	_ RANGE_	<b>20E</b> COUN	TY <u>san juan</u>	
DRILLING CONTRACTOR GRACE	•	•		_
RIG #	•	•		. •
SPUDDED: DATE 9-6-91	•			
TIME 5:00 a.m.	•			· .
HOW_ROTARY	•			
DRILLING WILL COMMENCE				
		* ************************************	, it is	
REPORTED BY GLENN GOODWIN	·	_		
TELEPHONE #	·	<b>-</b>		
			•	
		•		•
DATE 9-9-91		SIGNED	TAS/FRM	

### STATE OF UTAH DIVISION OF OIL, GAS AND MINING

BOPE TEST INSPECTION FORM Jim Marshall COMPANY: Chevron USA Inc REPRESENTATIVE: Austin Tennings WELL NAME: Cane Crk state 1-36 API# 43-037-31631 QTR/QTR SENE SECTION 36 WELLSIGN Y TWP 225 RANGE 208 INSPECTOR: Chenn Coodwin DATE: 9/9/91 DRILLING CONTRACTOR Grace 273 RIG OPERATIONS: Nippling UP BOP TEST BY Double Jack WATER Y MUD PRESSURE RATING OF STACK 10,000 H2S RATED 1 TEST PRESSURES 250 / 5000 KELLYCOCK: UPPER \_\_\_\_\_ LOWER \_\_\_\_\_ INSIDE BOP \_\_\_\_\_FULL OPENING VALVE ON FLOOR \_ WRENCH FOR FULL OPENING VALVE/KELLYCOCK ON FLOOR STACK - LISTED AS ARRANGED - TOP TO BOTTOM: 1. Grant Rotating head ADDITIONAL COMMENTS: Every thing tested Low 250 High 5000 Except Hydr. 11 Low 250 High 2500 High 2500 High Sent by mail from Bouble Tack REPORTED BY: Jim marshall PHONE: 2/3-261-5235 SIGNED:

(IF TESTED BY INDEPENDENT COMPANY, ATTACH COPY OF TEST)

STATE OF	HATU		
BIVISION	OF OIL.	GAS AN	D WINING

ENTITY ACTION FORM - DOGM FORM 6

ME	CIBIN	EU
	_	

SEP 1 6 1991

OPERATOR	Chevron	U.S.A.	Inc.
		:	

OPERAT	OR CODE		10210
PHONE	NO. 30	)3 , 93	0-3691

PO Box 599 ADDRESS \_\_

Denver, CO 80201

OPERATORS	S'MUST COMP	LETE FORM UF	DIVISII S GAS AI QUES NO.	ON CF: SeMINANGEN CHANGE IN	PPERATIONS OR IN	TERESTS	NECESS	ITATES	CHANGE	— IN EXISTING ENT	ITY NUMBER AS	SIGNMENT.
ACTION	CURRENT	NEW	API NUMBER	WELL NAME		WELL LOCATION					SPUD DATE	EFFECTIVE
CODE	ENTITY NO.	ENTITY NO.				QQ	SC	TP	RG	COUNTY		
Α	99999	1/266	43-037-31631	Cane Creek State	1-36	NW/SE	36	275	20E	San Juan	9/6/91	
COMMENTS	Explore	atory Wel	State-1 Field- Unit-1	Cane Creek State Lease Prop. Z Wildcat (Entit	y added 9-18-9.	he	· · · · · · · · · · · · · · · · · · ·				an hada a san a san a san a san a san a san a san a san a san a san a san a san a san a san a san a san a san	
COMMENTS	:	J				.JL		I	L	h		1
COMMENTS						-J L			I			
					<u> </u>							
TS:												
COMMENTS:	•					<del></del>					·	
									•			

ACTION CODES: A - ESTABLISH NEW ENTITY FOR NEW WELL (SINGLE WELL ONLY)

B - ADD NEW WELL TO EXISTING ENTITY (GROUP OR UNIT WELL)

C - RE-ASSIGN WELL FROM ONE EXISTING ENTITY TO ANOTHER EXISTING ENTITY

D - RE-ASSIGN WELL FROM ONE EXISTING ENTITY TO A NEW ENTITY

E - OTHER (EXPLAIN IN COMMENTS SECTION)

Permit Specialist 9/6/91

TITLE

### DOUBLE JACK TESTING AND SERVICE, INC.

B.O.P. nipple up and B.O.P. testing services
Hydraulic B.O.P. Lifts
Formation casing & leak-off testing
2bb up to 5000 PSI...3 GPM up to 20,000 PSI

### Methanal and Chemical Injection Rod Stott

Durango, CO (303) 259-5926 Mobile Unit (303) 247-1412, #587

Double lack Testing & Serices Inc. **FIELD TICKET** 09556 P.O. Box 516 DATE RIG NAME & NO. Shoshoni, WY 82649 Grace Drie Co WELL NAME & NO. (307) 876-9390 **OPERATOR** Cane Creek State Cheuron COUNTY STATE SECTION TOWNSHIP **RANGE** *2*75 43-037-31631 TIME HELD TIME HELD **ITEMS TESTED** LOW TEST PSI MINUTES HIGH TEST PSI MINUTES **う**Top Pipe Rams 3000ps1 Closing Unit Psi 5 Bottom Pipe Rams Closing Time of Rams // 520 **Blind Rams** 250 Closing Time of Annular /75८ Annular B.O.P. Closed Casing Head Valve Choke Manifold Set Wear Sleeve Choke Line **COMMENTS** Kill Line Super Choke Upper Kelly 5000 Lower Kelly Floor Valve Dart Valve ADDITIONAL TESTS & COMMENTS Test 133/8 casing 1000 psi - 30 mg DIVISION OF OIL GAS & MINING 41I-225900-AWJ HOEL- FFO ) **TEST PLUG** 12' Veteo Grav **RET. TOOL** TOP SUB. KELLY SUB. 41/2" IF 9-9-91

X-OVER SUB. 1/12" 1 F - 4 1/2"

**RATES** 

UNIT RATES 7 hr in 2 mus **MILEAGE** umngo **METHANOL OTHER** 

TESTED BY

#10

DOUBLE JACK TESTING UNIT NUMBER

TAX

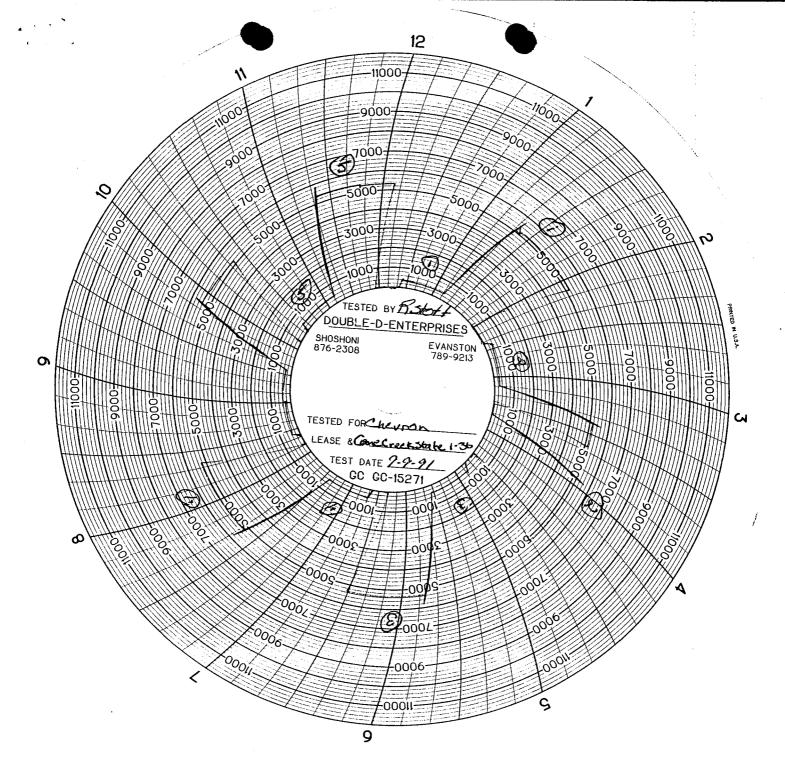
TOTAL

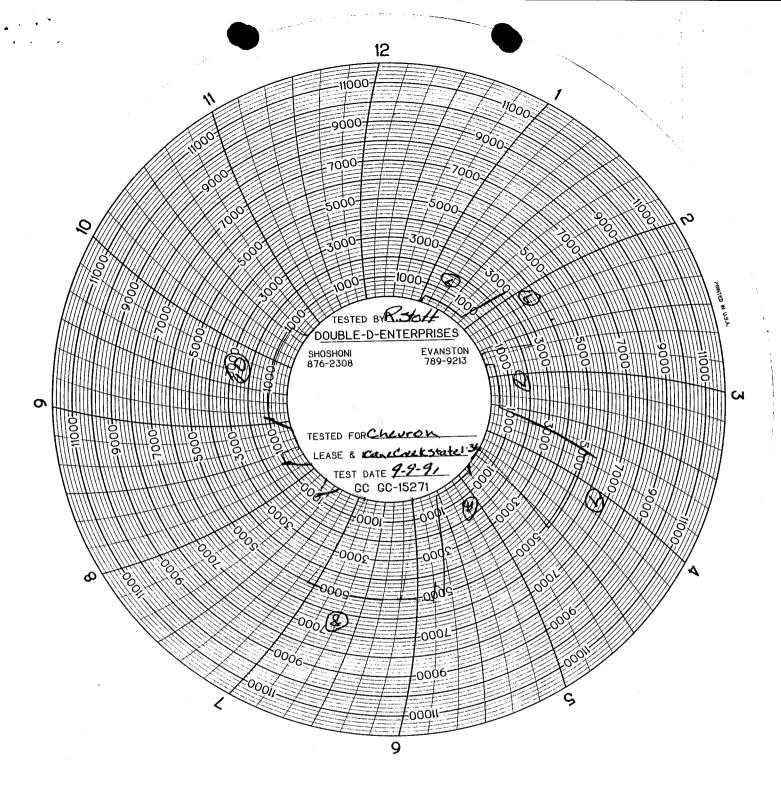
SUB TOTAL

**NOTICE TO ALL CUSTOMERS** 

If this account shall not be paid when due and it is placed with an attorney for collection, or if suit be instituted for collection, the undersigned agree(s) to pay in either case, reasonable expense of collection including attorney's fees and court cost in compliance with TRUTH IN LENDING AND THE UNIFORM CONSUMER CREDIT CODE, the following information disclosure, Under the terms of our regular accounts, all amounts for service due and payable within THIRTY (30) DAYS from the receipt of an invoice for such services A LATE CHARGE will be assessed when accounts are not paid when due. THE LATE CHARGE is computed by a "periodic rate" 1-3/4% PER MONTH which is an ANNUAL PERCENTAGE RATE OF 21% to the previous balance in the account on the billing date. No further credit can be extended on unpaid delinquent accounts until the delinquent account is paid in full. The contractor will not be held liable for damages caused by acts of God, or unforeseen circumstances that could not be reasonably anticipated in performing the work done as set forth above.

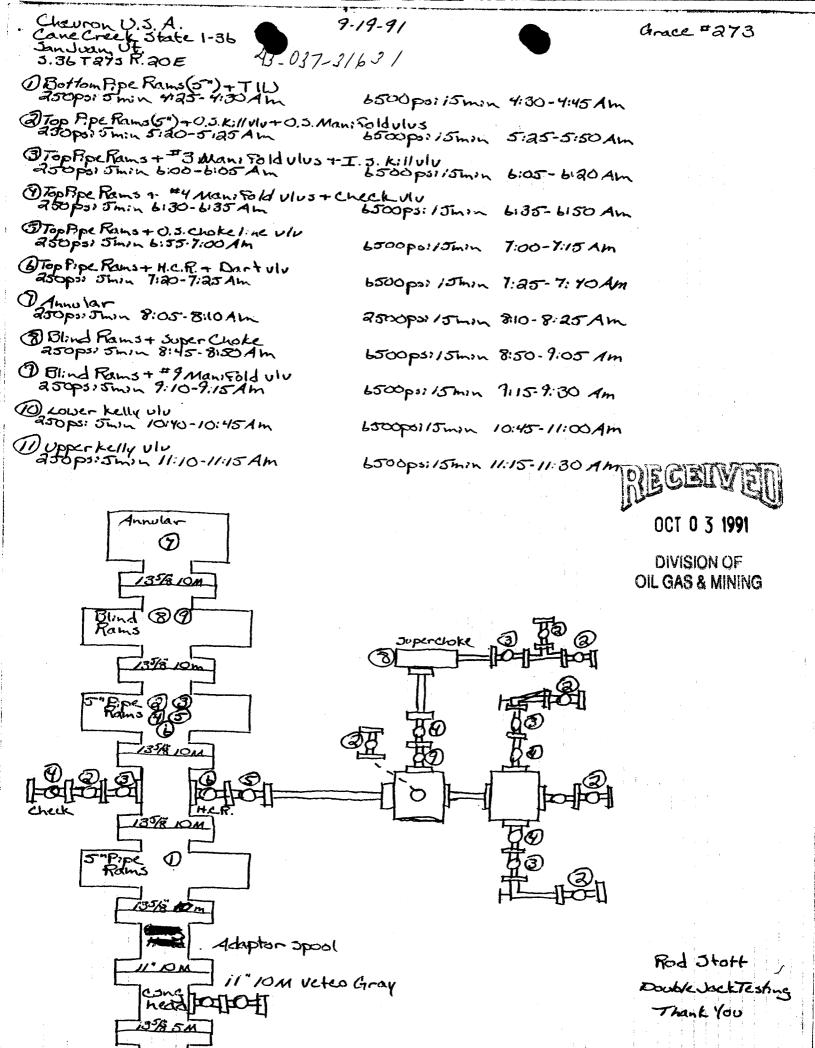
Cane Creek State 1-36 Jan July, Ut. 1) Bottom Pipe Rams (5) +TIW 250pp: 15min 11:30-11:45 Am 5000ps; 15min 11:45-12:Pm @Top Pipe Rams (5") + 0.5. Manisold vlus. + 0.5. K: 11 line vlv. 250 ps: 15min 18:15-18:30 Pm 5000ps: 15min 12:35-12:50 Pm Top Pipe Rams + Middle Manifold vlus + I. s. Kill line vlu 250psi 15min 1:00-1:15 Pm 5000psi 15min 1:15-1:30 Pm 9 Top Pipe Rams+Check viv+ Manual Choke/ine viv
350ps: 15min 1:35-1:50 SOODpi 15min 1:55-2:10Pm BTOPSIZE MINS & H.C.R.+ Dart vlu 230psizemin 2155-3110Pm 5000 pol 15min 3:15-3:30 PM (1) Annular 3:55. 4:10 Pm 2000 ps, 15min 4110-4:25 Pm DBlond Rams - I. S Man: Fold vivs 5000ps) 15min 4155-510Pm Bopper Kelly VIV 200ps, 15min 6:05-6120Pm 5000psi/5min 6:30-6:45Pm Places Kelly Ulv @133/8° Conq. 1000 poi 30min 11:45-12:15 Am Blind 13/8/00 Pedical: Check 135/2101 5 Fipe 0 13/8/0m spacer spool Rad Stott Double Jack Testing 13/2 50 Thank You Head FOH

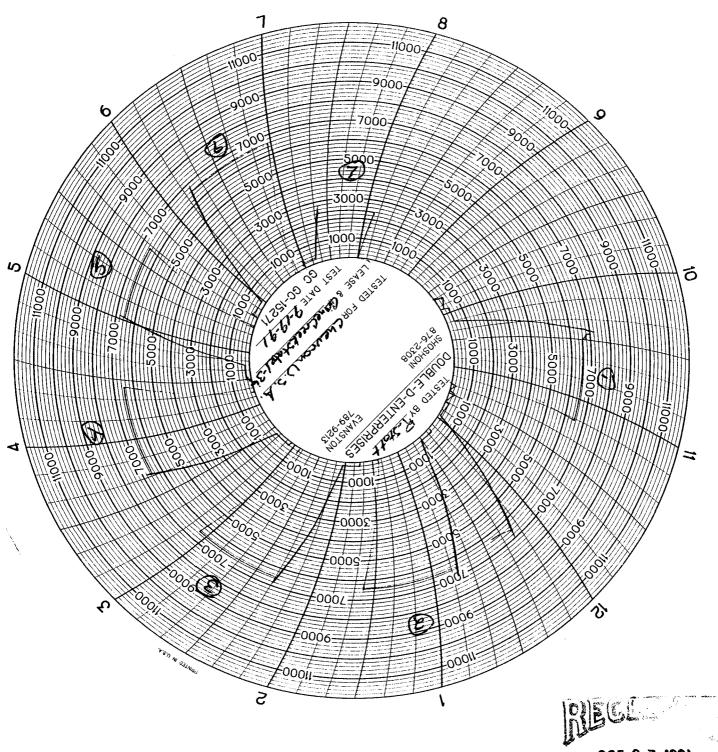




# STATE OF UTAH DIVISION OF OIL, GAS AND MINING BOPE TEST INSPECTION FORM

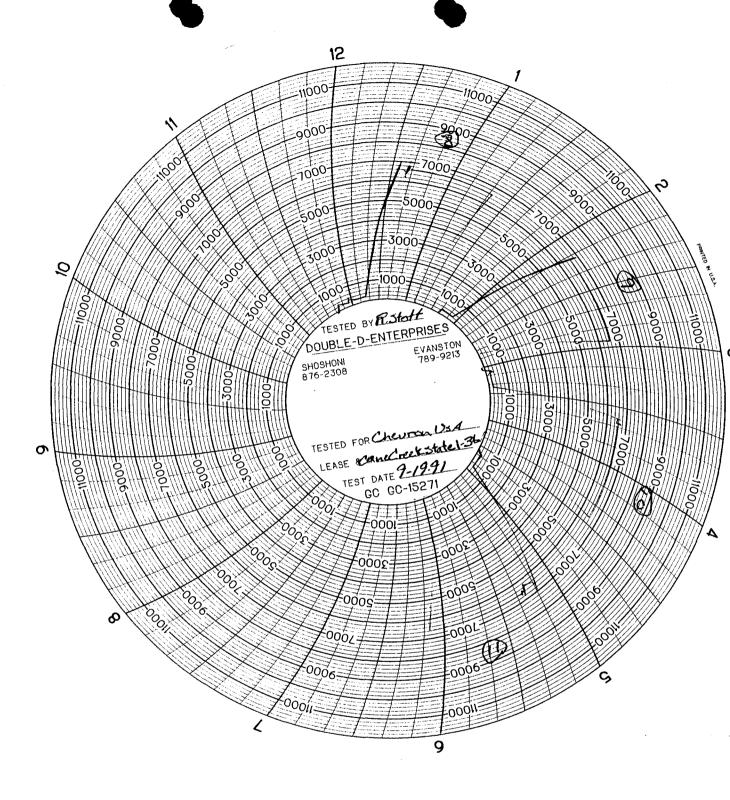
WELL NAME: Cane Crk 31,1-36 API# 43-032-3/63/ QTR/QTR SE NE SECTION 36 WELLSIGN Y INP 275 RANGE 206  INSPECTOR: Cs/con Croodwin DATE: 9/29/31  DRILLING CONTRACTOR Brace 273 RIG #  RIG OPERATIONS: WILLGEBRAK IN hale Core herore Plug back  DEPTH 1000 LAST CASING 7/8" Ulas  TEST BY Double Jack WATER Y MUD  PRESSURE RATING OF STACK 10000 H2S RATED Y  TEST PRESSURES 250 / 1600 KELLYCOCK: UPPER Y LOWER Y  INSIDE BOP Y FULL OPENING VALVE ON FLOOR  WRENCH FOR FULL OPENING VALVE/KELLYCOCK ON FLOOR  STACK - LISTED AS ARRANGED - TOP TO BOTTOM:  1. INSIDE Choke Man.  2. 2 MB ctman. Valves  3. Super Choke two down 5 tream valves  4. Down stream valve fast super Choke  5. Blind Rams-inside Kill  6. Upper Pipe Rams Tsecond Kill HCR & Tiw  ADDITIONAL COMMENTS: 5 Min. On Low & 15 Min. on High
INSPECTOR: Colon Goodwin DATE: 9/29/31  DRILLING CONTRACTOR Grace 273 RIG #  RIG OPERATIONS: WILLOGRANGK in hole Core herore Plug back  DEPTH DOOD LAST CASING 9/8" Ulass  TEST BY Double Tack WATER Y MUD  PRESSURE RATING OF STACK 1000 H2S RATED Y  TEST PRESSURES 250 / 1600 KELLYCOCK: UPPER Y LOWER Y  INSIDE BOP Y FULL OPENING VALVE ON FLOOR  WRENCH FOR FULL OPENING VALVE/KELLYCOCK ON FLOOR  STACK - LISTED AS ARRANGED - TOP TO BOTTOM:  1. INSIDE Choke Man.  2. 2 Mg-etman. Valves  3. Super Choke two down 5 tream valves  4. Down Stream Valve fast syzer Choke  5. Blind Rams-inside Kill  6. Upper Rige Rams 43econd Kill HCR4 Tiw
RIG #  RIG OPERATIONS: Will go back in habe core before Plug back  DEPTH
RIG OPERATIONS: Willgoback in hole core before Plug back  DEPTH
RIG OPERATIONS: Willgoback in hole core before Plug back  DEPTH
TEST BY Double Tack WATER Y MUD  PRESSURE RATING OF STACK / MOD H2S RATED Y  TEST PRESSURES 250 / Labor KELLYCOCK: UPPER Y LOWER Y  INSIDE BOP Y FULL OPENING VALVE ON FLOOR Y  WRENCH FOR FULL OPENING VALVE/KELLYCOCK ON FLOOR  STACK - LISTED AS ARRANGED - TOP TO BOTTOM:  1. INSIDE Choke Man.  2. 2 Mg & etman. Valves  3. Super Choke two down 5 tream valves  4. Down Stream Valve fast super Choke  5. Blind Rams - inside Kill  6. Upper Piper Rams 43 econd Kill HCR4 Tiw
TEST PRESSURES 250 / 1600 KELLYCOCK: UPPER Y LOWER Y INSIDE BOP Y FULL OPENING VALVE ON FLOOR WRENCH FOR FULL OPENING VALVE/KELLYCOCK ON FLOOR STACK - LISTED AS ARRANGED - TOP TO BOTTOM:  1. INSIDE Chake Man. 2. 2 MG-et man. Valves  3. Super Chake two down 5 tream valves 4. Dawn Stream Valve fast super Chake 5. Blind Rams-inside Kill 6. Upper Pipe Rams Tsecond Kill Hery Tiw
TEST PRESSURES 250 / 1600 KELLYCOCK: UPPER Y LOWER Y INSIDE BOP Y FULL OPENING VALVE ON FLOOR WRENCH FOR FULL OPENING VALVE/KELLYCOCK ON FLOOR STACK - LISTED AS ARRANGED - TOP TO BOTTOM:  1. INSIDE Chake Man. 2. 2 MG-et man. Valves  3. Super Chake two down 5 tream valves 4. Dawn Stream Valve fast super Chake 5. Blind Rams-inside Kill 6. Upper Pipe Rams Tsecond Kill Hery Tiw
TEST PRESSURES 250 / labor KELLYCOCK: UPPER Y LOWER Y INSIDE BOP Y FULL OPENING VALVE ON FLOOR WRENCH FOR FULL OPENING VALVE/KELLYCOCK ON FLOOR STACK - LISTED AS ARRANGED - TOP TO BOTTOM:  1. INSIDE Choke Man. 2. 2 Mg et man. Valves 3. Super Choke two down 5 tream valves 4. Down Stream Valve fast super Choke 5. Blind Rams - inside Kill 6. Upper Pipe Rams 43 econd Kill Hert Tiw
INSIDE BOP Y FULL OPENING VALVE ON FLOOR  WRENCH FOR FULL OPENING VALVE/KELLYCOCK ON FLOOR  STACK - LISTED AS ARRANGED - TOP TO BOTTOM:  1. INSIDE Choke Man.  2. 2 Mg-et man. Valves  3. Super Choke two down 5 tream valves  4. Down Stream Valve Past super Choke  5. Blind Rams-inside Kill  6. Upper Pipe Rams 7 second Kill HCR4 Tiw
wrench for full opening valve/kellycock on floor  STACK - LISTED AS ARRANGED - TOP TO BOTTOM:  1. Inside Chake Man.  2. Inside Chake Man.  2. Inside Chake Man.  3. Super Chake two down 5 tream valves  4. Davon Stream Valve Past super Chake  5. Blind Bams-inside Kill  6. upper Piper Kams & second Kill HCR4 Tiw
1. Inside Choke Man. 2. 2 Mg-et man. Valves 3. Super Choke two down 5 tream valves 4. Down Stream Valve Past swar Choke 5. Blind Rams-inside Kill 6. upper Pipe Rams 4 second Kill HCR4 Tiw
2. 2 ng 6-et man. Valves  3. Super Choke two down 5 tream valves  4. Down Stream Valve Past super Choke  5. Blind Rams-inside Kill  6. upper Pipe Rams & second Kill HCR& Tiw
3. Super Chake two down 5 tream values 4. Down Stream Value Past super Chake 5. Blind Rams-inside Kill 6. upper Piper Rams & second Kill HCR4 Tiw
3. Super Chake two down 5 tream values 4. Down Stream Value Past super Chake 5. Blind Rams-inside Kill 6. upper Piper Rams & second Kill HCR4 Tiw
5. Blind Rams-inside Kill 6. upper Pipe Rams 43-econd Kill Hery Tiw
6. upper Pipe Rams 4 3. econd Kill + HCR4 Tiw
REPORTED BY: Dale merrill PHONE:
DATE: 7/29/91 SIGNED:
(IF TESTED BY INDEPENDENT COMPANY, ATTACH COPY OF TEST)
0451T PAGE 1 INDEPENDENT COMPANY, ATTACH COPY OF TEST)

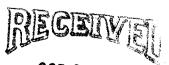




OCT 0 3 1991

DIVISION OF OIL GAS & MINING

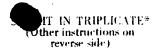




OCT 0 3 1991

DIVISION OF OIL GAS & MINING

### STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES



	DIVISI	ION OF OIL, GAS,	AND M	INING	5. LEASE DESIGN ML-43691	ATION AND SERIAL NO.
	SUNDRY NOT (Do not use this form for propo Use "APPLIC	ICES AND REP	ORTS or plug	ON WELLS back to a different reservoir. proposals.)		LOTTER OR TRIBE NAME
1.	OIL X GAS OTHER				7. UNIT AGREEM	EMAN THI
2.	Chevron U.S.A. Inc.				8. FARM OR LEAD	IE NAME
3.	P.O. Box 599, Denver,	CO 80201		,	9. WELL NO.	ek St. #1-36
4.	LOCATION OF WELL (Report location of See also space 17 below.) At surface	CO 80201 clearly and in accordance	e with an	State requirements.*	10. FIELD AND PO	OOL, OR WILDCAT
	2442' FEL, 1728' FSL			•	11. SEC., T., S., M SURVEY OF	L, OR BLE. AND
	PERMIT NO.	15. SLEVATIONS (Show	whether p	F. RT, GR, etc.)	Sec. 36. 7	
16.	43-037-31631				San Juar	1 UT
	CHECK A		ndicate i	Nature of Notice, Report, o	or Other Data	
	FRACTURE TREAT SHOOT OR ACIDIZE	PULL OR ALTER CASING MULTIPLE COMPLETE ABANDON® CHANGE PLANS	X	WATER SHUT-OFF FRACTURE IZEATMENT SHOOTING OR ACIDIZING (Other) (NOTE: Report reconstructions)	ALTER ABAND	RING WELL ING CASING ONMENT*
17.	DESCRIBE PROPOSED OR COMPLETED OPE proposed work. If well is directic	RATIONS (Clearly state a onally drilled, give subst	il pertine	Completion or Recut details, and give pertinent distinct and measured and true versions and measured and true versions.	completion Report and Lates, including estimate	og form.)
1.	Adequate geological is well depth to be revi	nformation was	obtain	ed on the vertical	hole section a	llowing the
2.	After completing the back with cement from hole and to allow the	open hole evalu 7300' to 6300' kick-off of th as discussed wi at a second cem	uation '. The ne well th Mr. nent pl	on October 11, 1991 plug was set to is so that the horizo F. Mathews with though and to be set fr	the well was colate the bott ontal section cole State DOGM at com 6625' to 63	plugged om of the ould be nd the drill
3.	The well azimuth and geological evaluation FSL AND 1160' FWL, Se from the lease line.	to $S45^{\circ}W$ and 2	2373'.	The new bottom hol	e location wil	1 be: 460'
4.	The well will be dril on the DIL log and ad within the boundaries	justments to tr	rue ver			
		CONFID	ENTINE	OCT :	2 1 1991	
				DIVIS	SION OF	
18.	I hereby certify that the foregoing in	7	TLE Pe		& MINING	/15/91
	(This space for Federal or State off	ce use)				
	APPROVED BY CONDIA. IS OF APPROVAL, IF A		TLE		DATE	

### STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES



5. LEASE DESIGNATION AND SERIAL NO. DIVISION OF OIL, GAS, AND MINING ML-43691 6. IF INDIAN, ALLOTTEE OR TRIBE NAME SUNDRY NOTICES AND REPORTS ON WELLS (Do not use this form for proposals to drill or to deepen or plug
Use "APPLICATION FOR PERMIT—" for such p 7. UNIT AGREEMENT NAME WELL X gas Well 2. NAME OF OPERATOR OCT 3 1 1991 8. FARM OR LEASE NAME Chevron U.S.A. Inc. 3. ADDRESS OF OPERATOR 9. WELL NO. DIVISION OF PO Box 599, Denver, CO 80201 Cane Creek St. #1-36 LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface 10. FIELD AND POOL, OR WILDCAT Wildcat 11. SEC., T., B., M., OR BLE. AND SURVEY OR AREA 2442' FEL, 1728' FSL Sec. 36, T27S, R20E 14. PERMIT NO. 15. BLEVATIONS (Show whether DF, RT, GR, etc.) 12. COUNTY OR PARISH! 18. STATE 43-037-31631 San Juan Utah 16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data NOTICE OF INTENTION TO: SUBSEQUENT ESPORT OF : TEST WATER SHUT-OFF PULL OR ALTER CASING WATER SHUT-OFF REPAIRING WELL FRACTURE TREAT MULTIPLE COMPLETE FRACTURE TREATMENT ALTERING CASING SHOOT OR ACIDIZE ABANDON® SHOUTING OR ACIDIZING ABANDONMENT\* REPAIR WELL CHANGE PLANS (Other) (Note: Report results of multiple completion on Weil Completion or Recompletion Report and Log form.) (Other) 17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones perti-The following was discussed between Frank Matthews, DOGM, and John Swinson on October 24, 1991: INTERMEDIATE CASING RUNNING & CEMENTING PROCEDURE: OBJECTIVES: Drill the build section of the well into the Cane Creek "B", run and cement 7" casing through the build section. Reduce the mud weight, drill ±500' of Cane Creek, evaluate the open hole and perform a drill stem test. Decision to proceed ahead will depend on the results of the DST. GENERAL PROCEDURE: 1) Drill the build section into the Cane Creek to 7288'MD/7032'TVD. CCM. 2) POOH, P/U steerable BHA and PDC, RIH, drill ahead to 7350'FTMD/7032'FTTVD. CCM, short trip to kick off point, CCM. 3) POOH L/D drill pipe to run casing. 4) Make up and run casing to total depth as follows: Float shoe 2 - Joints 7", 29 PPF L-80 SL-HC casing Float collar 7", 29 PPF, L-80, SL-HC (run all on location ±1200') Crossover - SL-HC pin x LTC box 7", 29 PPF, L-80, LTC to surface 5) Install centralizers as needed. Ensure adequate stand-off through the build section. 6) If needed, wash casing to bottom, CCM to premium properties. Reciprocate casing throughout cement job if well conditions permit. 7) Pump 20 bbls SAM-4 spacer, drop bottom pluq. 8) Mix and pump cement with additives: Class "H"; 3% KCL; 0.3% Halad 322; 0.6% Halad 344; FW - 0%; WL - 28 cc; T.T. - 2 hrs., 32 min.; Density - 16.4 PPG, Yield - 1.06 CF/SX. (Continued - see attached sheet.) 18. I hereby certify that the foregoing is true and correct Permit Special APPROVED BY SIGNEI TITLE (This space for Federal or State office use) OIL, GAS, AND MINING APPROVED BY COMDILL VS OF APPROVAL, IF ANY:

Chevron U.S.A. Inc. Form OGC-1b 10/25/91 Page 2

- 8. Cement from 7" shoe to  $1000^{\circ}$  inside the 9-5/8" casing at 4635'. Base open hole plus 10%.
- 9. Drop top plug.
- 10. Displace cement with mud, bump plug. If plug does not bump, do not over displace 1/2 the shoe volume. Reciprocate casing.
- 11. Check floats, RD Halliburton.
- 12. If well is stable, P/U stack and set casing slips, install and test section "C" tubing head to 80% of the collapse on the 7".
- 13. Install and test BOPE's to 6500 PSI.
- 14. P/U slick BHA and 3-1/2" drill pipe, RIH to float collar, test casing to  $3500 \, \text{PSI}$ .
- 15. Drill out casing and float equipment plus 8-10' of new formation. CCM while reducing mud weight. Final mud weight before drilling ahead to be based on well indications. POOH.
- 16. P/U steerable BHA, Sperry Sun MWD (GR/directional) and RIH.
- 17. Drill ±500' of horizontal hole within the Cane Creek interval.
- 18. Run open hole evaluation, therefore, open hole logs, drill stem test etc. Decision to proceed ahead to be determined by evaluation.

# Division of Oil, Gas and Mining PHONE CONVERSATION DOCUMENTATION FORM

[] Well File (Return Date) (Return Date) (To - Initials) (API No.)	[] Other
1. Date of Phone Call: 1/-11-91 Time: 9:30.	AM
2. DOGM Employee (name) Frank Matthews Talked to:  Name John James (Initiated Call W) - Phone of (Company/Organization) Reman USA	No. <u>(303)930- 36</u> 0
3. Topic of Conversation: Plugging procedure The referenced well,	e fr
4. Highlights of Conversation: Place CR @ ± 72.  Short Collar in 7" pump enough  horizontal portion of hole. Dump 100  of retainer. Set CIBP @ ± 53  ft Coment in Bl. Set hal port  ± 4685 to 4332 to Core  Salt. 50' place @ Surface  Cut off #" it 50 & set  able to fill 1338 csa to Surg	coment to fell



#### Chevron U.S.A. Inc.

6400 South Fiddler's Green Circle, Englewood, CO 80111, P.O. Box 599, Denver, CO 80201

November 12, 1991

C.A. Gordy Manager - Drilling

> CHEVRON CANE CREEK #1-36 WELL SECTION 36, T27S, R20E SAN JUAN COUNTY, UTAH PERMISSION TO DISPOSE OF RESERVE WASTE WATER

> > 43-037-31631

Mr. G. Hunt
State of Utah
Department of Natural Resources
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

MEGENVEU

NOV 1 4 1991

DIVISION OF OIL GAS & MINING

Dear Mr. Hunt,

Chevron has completed the drilling and evaluation of its Cane Creek State #1-36 well. The well is a dry hole and will be Plugged and Abandoned.

Chevron requests permission to dispose of the reserve pit waste water down the 13-3/8" x 9-5/8" casing annulus. The 13-3/8" casing was set into the Chinle Formation at 697'. The 9-5/8" casing was set into the Desert Creek Formation at 4635'. The Top Salt is estimated at 4382' by open hole logs.

The primary cement job on the 9-5/8" casing was questionable with no indications of fluid returns or rise in the annulus. Several top jobs were performed on the 13-3/8" x 9-5/8" annulus but continued to stay on a vacuum. No further remedial operations have been performed to date.

We would like to discuss the options and requirements of disposing of the water in the reserve pit. Please contact Mr. J.R. Swinson at (303) 930-3604 or Ms. J. Watson at 930-3691.

MI

C.A. Gordy

jrs/dispose

# STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES



	VISION OF OIL, GAS,			5. LEASE DESIGNATION  ML - 4369	)/
SUNDRY N (Do not use this form for the "AP"	OTICES AND REPOPULATION FOR PERMIT—	ORTS Con or plug b	ON WELLS ack to a different reservoir. roposals.	6. IF INDIAN, ALLOTTES	E OR TRIBE NAME
OIL GAS GAS THE OTHER				7. UNIT AGREEMENT NA	M3
2. NAME OF OPERATOR		<del></del>		8. PARM OR LEASE NAM	(1)
CHEVRON U.S	S.A. INC.			CANE CREEK	STATE
P.O. Box 599	DENVER ,	Co. 1	30201	1-36	
4. LOCATION OF WELL (Report loca	tion clearly and in accordance	e with any	State requirements.	10. FIELD AND POOL, O	WILDCAT
At surface 2442 FEL	, 1728'FSL			11. ABC., T., B., M., OB 1	
TD 1160' FWL, 460	o FSL			SEC. 36, TZ	
14. PERMIT NO.	15. BLEVATIONS (Show	whether or	22 (2 da )	12. COUNTY OR PARISH	
43-037-31631	5848'		, NT, QN, (NA.)	SAN JUAN	1
16. Chec			lature of Notice, Report, or C	Other Data	
	INTENTION TO:			UBNT ABPORT OF:	
TEST WATER SHUT-OFF	PULL OR ALTER CASING		WATER SHUT-OFF	REPAIRING T	WELL
FRACTURE TREAT	MULTIPLE COMPLETE		PRACTURE TREATMENT	ALTERING CA	ASING
SHOOT OR ACIDIZE	ABANDON*		SHOUTING OR ACIDIZING	ABANDONME	17.
REPAIR WELL	CHANGE PLANS		(Other)	of multiple completion	oz Weil
(Other)  17. DESCRIBE PROPOSED OR COMPLETE	EN OPPRATIONS (Clearly state	all pertinen		letion Report and Log for including estimated dat	e of starting any
DOWN 1398'S	.9-98 CASIN	ic an	TA 332 LEWINNI	LHCHED FOI	K
	ROVED BY THE		<b>*</b>	Table & Tall	Man
UIU TAG	. GAS, AND MII	NING		Income of	
BY:	es Alt			Nov.	
	ATTACHED CONDITION	IS		NOV 1 4 19	991
				DIVISION C	<b>\</b> ₹22
	+ <b>5</b>			OIL GAS & MIN	
18. I hereby certify that the fore	joing is true and correct		<b>4</b> •	<u> </u>	
signed Rowins	<u>~</u>	TITLE Sey	OCRINTENDENT - DEILLING	DATE 13-N	10U-71
(This space for Federal or St	ate office use)				
APPROVED BY		ritle		DATE	

CHEVRON U.S.A. INC.
APPROVAL FOR ANNULAR INJECTION OF DRILLING FLUIDS

CANE CREEK STATE #1-36 SEC. 36, T278, R20E, SAN JUAN COUNTY, UTAH 43-037-31631

The proposal is to allow drilling fluid (primarily salt water) to free fall down the annulus between the 13-3/8" and 9-5/8" casing strings. The hole was drilled with air and mist to a depth of 4635'. This indicates that no prolific water aquifers or fracture systems were encountered. Evidence from drilling in the area shows that strata becomes damp and salty near or below 2000' which is probably within the Cutler Formation stratigraphically. The fact that excess volumes of cement were pumped while trying to cement the 9-5/8" casing which resulted in no fluid returns or rise in the annulus above the casing shoe indicates that any fluid falling down the annulus would most likely exit the well bore near 4600' depth.

Study indicates that local ground-water flow in the area is controlled primarily by extensional faulting. These faults appear to be limited to the crest area of the Cane Creek anticline near the potash mine. Wells and mine shafts in areas void of extensional faulting encountered little ground water. While those located near faults (Texasgulf Cane Creek No. 7 Well) encountered prolific water zones. These zones are charged with hydrogen sulfide brines.

Due to the lack of faulting near the #1-36 well it is likely that injection of a small volume of fluid under little or no surface pressure would not be transmitted very far from the well bore. It is also expected that due to the inability of the formation near 4600' depth to hold a hydrostatic head that fluid entry would be at or near this depth. Since the water which now exists in this interval is saline, the addition of a small volume of drilling fluid (primarily salt water) at low pressure would have no adverse affects on the ground water system or other resources in the area.

#### CONDITIONS OF APPROVAL:

- 1. Surface injection pressure shall not exceed 100 psig during injection operations.
- 2. A tracer or other log shall be run to verify that the interval at which the fluid leaves the well bore is not above approximately 2800'. If a temperature log is used the injection fluid shall be cooled or heated to the point which allows adequate temperature differential between it and the formation to show departure. During the disposal operations if logging shows the fluid is not going below 2800' for any reason, injection operations shall cease immediately and an alternative disposal method used.
- 3. This is a one time approval for disposal of not more that 8000 barrels of fluid.

#### CANE CREEK #1-36 SECTION 36, T278, R20E SAN JUAN COUNTY, UTAH

#### PROPOSED ANNULAR DISPOSAL of DRILLING FLUIDS

#### Additional Information for Sundry:

1. Logs run over proposed interval:

Dual Induction Guard Log : 4638' to 700'
Long Spaced Sonic : 7300' to 3386'
Full Wave Sonic : 7300' to 4279'

No log or other relative information is available for identifying the cement top outside the 9-5/8" casing.

- 2. See attached wellbore schematic.
- 3. Preliminary Analysis of Drilling fluid is:

Density : 8.6 ppg

Funnel Viscosity : 27

Solids Content : <5% by retort Chlorides : 36,000 mg/l Calcium : 7200 ppm

Water Content : 99.5% Oil Content : 0.5%

Additional testing if required can be performed.

- 4. Estimated Injection Pressures are not to exceed 100 psi.
- 5. Total Anticipated Volume to be injected down the 13-3/8"x 9-5/8" annulus is 8,000 bbls.
- 6. Estimated parting pressures for the proposed injection zone? The annulus is currently on a vacuum.
- 7. See the attached formation tops picked on this well. The 13-3/8" casing was cemented to surface and therefore the zones above 697' should be isolated. The formations from 697' to the Ismay (cycle 2) are not isolated at this time.
- 8. The anticipated formation for injection is the Ismay (cycle 2) at 4334'. The thickness is approximately 48'. Any formation between 697' to 4635' may be capable of excepting this fluid.
- 9. A temperature log would be run initially to obtain a base log. While injecting fluids, the temperature log will be run inside the casing to predict/verify the injection interval.

#### CANE CREEK #1-36 SECTION 36, T278, R20E SAN JUAN COUNTY, UTAH

#### GEOLOGICAL INFORMATION

Geological Information for proposed annular disposal of drilling fluid - Cane Creek State 1-36

Chinle 696-1104' (408') shale: medium brown to red brown sandstone: off white to light green, very Fine to fine grained siltstone: light gray to light green

Moenkopi 1104-1326' (222') siltstone: medium brown to red/orange shale: medium to dark brown, very silty sandstone: medium brown to orange-brown very fine grained

Cedar Mesa 1326-1604' (278') sandstone: orange to red brown, very fine to fine grained, unconsolidated in part siltstone: medium to dark brown to orange brown

Cutler 1604-2886' (1282')

sandstone: white, red, orange, unconsolidated in part, very fine to fine grained, calcareous cement siltstone: red brown, orange, occassionally marly, calcareous cement limestone: white, medium gray to gray, mottled, dense shale: red brown, silty

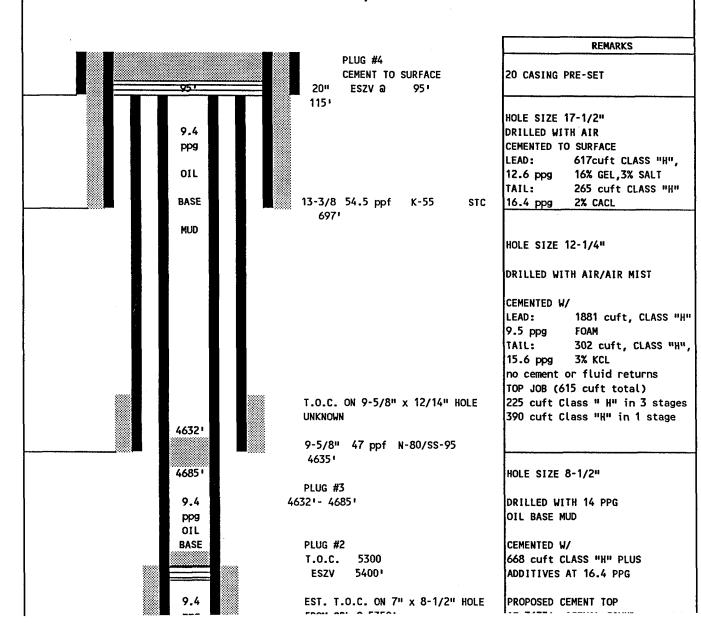
Honaker Trail 2886-4088' (1202') limestone: tan to brown, very fine to crypto-crystalline, dense sandstone: white, cream, buff, very fine to fine grained, calcareous cement shale: medium to dark gray, silty

Paradox Fm. 4088-4333' (245') limestone: white to dark brown, occassionally cherty, dense, very fine to micro-crystalline sandstone: white to light brown, very fine grained, tight

Cycle 2 (Ismay) 4333-4523' (190') salt: white, clean calcareous mudstone: gray brown to light gray, soft, slightly dolomitic dolomite: tan to brown, very fine to micro-crystalline

Cycle 3 4523-4687' (164') sandstone: white to cream, very fine grained, medium to very calcareous anhydrite: white translucent to opaque

# CANE CREEK #1-36 PROPOSED PLUG & ABANDONMENT SCHEMATIC ACTUAL CASING/CEMENTING SCEMATIC



PAGE 1 POR0304 CHEVRON DRILLING DATABASE OPERATIONS SUMMARY REPORT

11-19-91

AREA: PARADOX BASIN

WELL: CANE CREEK #1-36 RIG: GRACE 273 DIVISION: DENVER
OP/NONOP: CHEVRON OPERATED

CATEGORY: EXPLORATORY UNIQUE CODE: HDE1FF01

RIG TYPE: LA

API: 43-037-31631

MD: 700' 20" @80' COST: \$263,634

09-08-91 MW: MD: 700' LAST SURVEY: .75 DEG @ 616

- 72 HR SUMMARY: FIN RU BLOOIE LINE. PU DC & MILL TOOTH BIT. BLOW WELL DRU W/AIR. DR F/115-244. WK & CLN TGT HOLE. SURVEY. DR & SURVEY F/244-457. REPAIR BLOOIE LINE. DR, SURVEY & BLOW CLN F/457-700. TOOH. TIH BLOW CLN. TOOH. LD DC. RUN 13 3/8" CSG. SHOE @697. RIH W/INNER STR ADAPT ON 5" DP. TIE DN CSG & DP. LOAD ANN W/WTR. CMT CSG. FULL RETURNS. POOH W/DP. WOC. CUT OFF CSG & WELD ON SURF CSG HD. TST VOID. NU BOPE.
- 09-09-91 MW: 0.0 MD: 700' 13.375" @697' COST: \$301,466 LAST SURVEY: .75 DEG @ 616
  - 24 HR SUMMARY: NU BOPE & TST. PU BIT #2 & TIH. TST CSG, HELD OK. CHG OUT LOWER KELLY COCK.
- 09-10-91 MW: 0.0 MD: 1,176' 13.375" @697' COST: \$326,094 LAST SURVEY: .25 DEG @ 980
- 24 HR SUMMARY: TOOH. BLOW HOLE CLN. D/O CMT, FLOAT CLR &FLOAT SHOE. DRLG, BLOWING HOLE CLN & SURVEYING F/ 700-1176'.
- 09-11-91 MW: 0.0 MD: 1,818' 13.375" @697' COST: \$337,988 LAST SURVEY: 1.5 DEG @ 1750
  - 24 HR SUMMARY: DRLG & SURVEY F/1176-1818. BLOW HOLE CLN.
- 09-12-91 MW: 0.0 MD: 2,209' 13.375" @697' COST: \$350,904 LAST SURVEY: 2.25 DEG @ 2154
  - 24 HR SUMMARY: DRLG, BLOW CLN & SURVEY F/1818-2109. BIT BOUNCE & TORQUE UP. BLOW CLN. POOH W/BIT. CHG BHA & TIH W/BIT #3. +/-5' FILL. DRLG F/2109-2209. BLOW CLN & SURVEY.
- 09-15-91 MW: 0.0 MD: 4,020' 13.375" @697' COST: \$842,113

LAST SURVEY: .50 DEG @ 3658

- 72 HR SUMMARY: DRLG F/ 2209-2491.ADJ FOAM QUALITY TO RED. BIT BOUNCE. BLOW CLN. SURVEY. DRLG F/ 2491-4020. BLOW CLN & SURVEY. WTR INFLUX @ 3940. UNABLE TO INC WOB DUE TO BIT BOUNCE.
- 09-16-91 MW: 0.0 MD: 4,510' 13.375" @697' COST: \$861,093 LAST SURVEY: 1.0 DEG @ 4411
  - 24 HR SUMMARY: DRLG, BLOW CLN & SURVEY F/4020-4217. CK BOPE. DRLG, BLOW CLN & SURVEY F/4217-4510.
  - 09-17-91 MW: 0.0 MD: 4,639' 13.375" @697' COST: \$899,916 LAST SURVEY: 1.0 DEG @ 4411
    - 24 HR SUMMARY: DRLG 4510-4639. 9 5/8" CSG PT. BLOW CLN. SHORT TRIP FOR CSG SHOE. BLOW CLN @4693. POOH. RUN DIL-GR-CAL F/4632-700. RU CSG CREW. RUN 9 5/8" CSG.

PAGE 2 POR0304 CHEVRON DRILLING DATABASE OPERATIONS SUMMARY REPORT DIVISION: DENVER 11-19-91 16:29:23

AREA: PARADOX BASIN WELL: CANE CREEK #1-36

OP/NONOP: CHEVRON OPERATED

UNIQUE CODE: HDE1FF01

CATEGORY: EXPLORATORY

RIG TYPE: LA

RIG: GRACE 273 API: 43-037-31631

09-18-91 MW: 0.0 MD: 4,639' 13.375" @697' COST: \$1,046,942

LAST SURVEY: 1.0 DEG @ 4411 24 HR SUMMARY: FIN RUNNING 9 5/8" CSG. CMT CSG. 945 SX LEAD & 250 SX TAIL. DID NOT BMP PLG. ND BOPE. SET CSG SLIPS. CUT 9 5/8" CSG. NU CSG HD. START NU BOPE & RUNNING GYRO.

09-19-91 MW: 0.0 MD: 4,647' 9.875" @4635' COST: \$1,082,482 LAST SURVEY: 1.0 DEG @ 4411

24 HR SUMMARY: FIN NU BOPE & RUN GYRO SURVEY. TST BOPE. INST WEAR RING. RU KELLY. RIH W/BHA #1. TAG CMT @4537. DR CMT & FLOAT COLLAR. FREE TO 4621. P-TST CSG. HELD. DR HARD CMT & FELL THRU TO SHOE. DR SHOE. DR 10' TO 4647. CIRC BTM UP. SPOT 25 BBL 50 VIS PILL ON BTM.

MW: 9.7 MD: 4,657' 9.875" @4635' COST: \$1,237,512 LAST SURVEY: 1.0 DEG @ 4411

72 HR SUMMARY: SHOE TST-BRK DN. PRESS BLED TO 0. POOH. RUN 2 7/8" TBG. SQZ SHOE W/250 SX. SWI. TOOH. WOC. RIH TAG TOC @4572. WOC. DR CMT F/4572-75. CMT SOFT. WOC. D/O CMT TO 4657. CIRC CLN. SHOE INTEGRITY TST-BRK DN @1710. TOOH. TIH TO SQZ SHOE W/250 SX CMT. PRESS UP. SWI. WOC. REL PRESS. POOH. RIH W/BIT. TAG TOC @4091. DR CMT F/4091-4487. CMT HARD. CIRC CLN. POOH.

09-23-91 MW: 9.0 MD: 4,919' 9.875" @4635' COST: \$1,259,826 LAST SURVEY: 1.0 DEG @ 4411

24 HR SUMMARY: DISP WTR W/ INVERT MUD SYS. DRILL CMT AND 11' OF NEW FORMAT F/ 4487-4668. CIRC & COND MUD. PERFORM 9 5/8" SHOE TST. TSTED TO A 16.6 PPG EQUIV. TRIP OUT OF HOLE. DRLG F/ 4668-4919.

09-24-91 MW: 9.1 MD: 5,590' 9.625" @4635' COST: \$1,291,458 LAST SURVEY: 3.0 DEG @ 5383

24 HR SUMMARY: DRLG & SURVEYING F/ 4919-5590.

09-25-91 MW: 10.3 MD: 6,239' 9.625" @4635' COST: \$1,329,032 LAST SURVEY: 1.5 DEG @ 5807

24 HR SUMMARY: DRLG F/5590-5862. ALIGN STACK FOR ROT HD. SERV RIG. WK BOPE. SURVEY. DRLG 5862-6239.

09-26-91 MW: 13.1 MD: 6,391' 9.625" @4635' COST: \$1,348,858 LAST SURVEY: 1.25 DEG @ 6311

24 HR SUMMARY: DRLG, CIRC & SURVEY F/6239-6391. SD PMP CK FOR FLOW. SMALL FLOW. SWI PRESS INC IN 30 MIN. STABILIZED. CIRC OUT WTR THRU CK. WELL FLOW-ING. INC MW TO 13.3.

09-29-91 MW: 13.5 MD: 7,018' 9.625" @4635' COST: \$1,430,360 LAST SURVEY: 3.25 DEG @ 6970

72 HR SUMMARY: INC MUD WT TO 13.3 PPG. NO MORE INFLUX. DRLG F/ 6391-6713. C/O ROT HD. POOH FOR SHORT TRIP. TGT SPOT @ 6624. CIRC & COND HOLE @ 6681. CONT SHORT TRIP TO CSG SHOE @ 4635. WSH & RM 6650-6713. TIGHT SPOT @ 6686. WRK CLN. CONT TO BTM. DRLG F/ 6713-6775. SWI DUE TO WTR INFLUX. COND MUD. DRLG & SURVEYING F/ 6775-7018. POOH. TST BOPE. TIH W/ CORING ASSEMBLY.

PAGE 3 CHEVRON DRILLING DATABASE PQR0304

OPERATIONS SUMMARY REPORT DIVISION: DENVER

11-19-91 16:29:24

AREA: PARADOX BASIN WELL: CANE CREEK #1-36 RIG: GRACE 273

API: 43-037-31631

OP/NONOP: CHEVRON OPERATED CATEGORY: EXPLORATORY UNIQUE CODE: HDE1FF01

RIG TYPE: LA

09-30-91 MW: 13.4 MD: 7,018' 9.625" @4635' COST: \$1,466,894

LAST SURVEY: 3.25 DEG @ 6970

24 HR SUMMARY: TIH TO CORE. WELL STARTED FLOWING. CIRC WELL DEAD. CONT TIH. TIGHT SPOTS @ 6650-6839. WSH & RM TO BTM. MUD CLABBERING UP CAUSING PLUG UP PULL UP INTO CSG. SWAP OUT & CONDITION OIL MUD WHILE CLEANING SURFACEEQUIP

MD: 7,018' 9.625" @4635' COST: \$1,485,206 10-01-91 MW: LAST SURVEY: 3.25 DEG @ 6970

24 HR SUMMARY: CONT TO CLN SURF EQUIP. MIX & PMP A 20 BBL PILL. POOH W/ CORE BBL ASSY. TIH W/ RE-RUN BIT #4.

MD: 7,018' 9.625" @4635' COST: \$1,555,119

LAST SURVEY: 3.25 DEG @ 6970

24 HR SUMMARY: CONT TIH TO CSG SHOE. WELL STABLE. CONT TO BLD INVERT SYS. CONT TO INCREASE MW IN ACTIVE SYSTEM.

10-03-91 MW: 14.0 MD: 7,018' 9.625" @4635' COST: \$1,630,024 LAST SURVEY: 3.25 DEG @ 6970

24 HR SUMMARY: CONT BUILD INVERT SYST & WT TO 14. BUILD HIGH VIS PILL. SLOW DUE TO BARITE DELIVERY SYSTEM. MODIFIED SYSTEM. FILL DP W/MUD & PILL. CIRC. ROT & RECIP. STARTED TO LOSE RETURNS. AFTER 280 BBLS, LOST ALL RETURNS. SD PMP, LOST 15-20 BBLS. START POOH. SLOW PULLING DUE TO WET TRIP.

10-06-91 MW: 14.1 MD: 7,106' 9.625" @4635' COST: \$1,738,706 LAST SURVEY: 3.25 DEG @ 6970

72 HR SUMMARY: FIN POOH. BIT @2595. CIRC 14 PPG MUD. REC THICK MUD. MUD THINNING. 100% RETURNS. RIH W/DP TO 3527. CIRC MUD UNTIL 14 PPG IN & OUT. RIH TO 4542. CIRC MUD. WT UP 115 BBLS F/PREMIX TANK. RIH TO 4834. CIRC. RIH & CIRC TO 6952. W & R TO BTM 7018. CIR & COND MUD. MUD CLN UP OVER SHAKERS. PMP 15.2 PILL. TOOH TO SHOE. XFER 125 BBLS MUD F/TANK. WT UP TO 14 & CIRC. C & C MUD UNTIL 14 PPG THRUOUT. POOH. WHEN BIT @+/-5000' TOOK 70BBLS TO KEEP HOLE FULL. CONT OUT W/ NO PROBLEMS. PU CORE BBL, & ORIENTATION TOOL. TIH TO SHOE. XFER 125BBLS MUD F/TANK. WT UP TO 14. FIN TIH TO 7018, W & R 42' TO BTM. CORE CANE CK F/7018-49. LOST 20BBLS MUD DURING CORE. ORIENT CORE. CIRC SAMPLES. NO FLOW. PMP WT PILL. TOOH W/CORE. RECOV 31' CORE. PU CORE BARREL EXTENSION & 60' OF CORE BARREL. INST ORIENT TOOL. SERV RIG TST BOPE. RIH W/ CORE BBL TO 7049. WASH 50'. XFER 150BBLS MUD F/TANK. CHG SHAKERS SCREENS TO 140 MESH. CORE #2 CANE CK F/7049-7106.

10-07-91 MW: 14.0 MD: 7,164' 9.625" @4635' COST: \$1,813,520

LAST SURVEY: 3.25 DEG @ 6970 24 HR SUMMARY: FIN CORING F/7049-7110. ORIENT CORES W/SCIENTIFIC DRLG. CIRC UP SAMPLES. PMP PILL. TOOH. LD CORE. FULL RECOV EXCEPT OF CORE EXCEPT LAST 2' SALT. LD JARS. PU SMITH F-3 BIT. TIH TO 9 5/8" SHOE. CUT DRLG LINE. RIG REPAIR. ELECTRICAL PROBS. CIRC. FIN RIH W/BIT. W & R TO BTM. DRLG F/7110-7164. DRLG SALT.

PAGE 4 PQR0304 CHEVRON DRILLING DATABASE OPERATIONS SUMMARY REPORT

11-19-91 16:29:24

AREA: PARADOX BASIN WELL: CANE CREEK #1-36

OP/NONOP: CHEVRON OPERATED CATEGORY: EXPLORATORY

RIG TYPE: LA

RIG: GRACE 273 API: 43-037-31631

UNIQUE CODE: HDE1FF01

DIVISION: DENVER

10-08-91 MW: 14.1 MD: 7,230' 9.625" @4635' COST: \$1,870,404 LAST SURVEY: 3.25 DEG @ 6970

24 HR SUMMARY: DRLG F/7164-7216. CLASTICS & DOLOMITES DR 2-3'/HR. INC WOB & PMP RATE. COULD NOT DRILL FASTER. MUD BECOMING THICK & LOSING BARITE CARRY-ING CAPACITY. CIRC MUD. MUD INDIC WTR WET SOLIDS. ADD VERSAWET, VERSACOAT & FRESH WTR. VISC & ELEC STABILITY STABILIZED. RESUME DRLG F/7216-30. NO FLOURESENCE OR CUTS.

10-09-91 MW: 14.1 MD: 7,271' 9.625" @4635' COST: \$1,908,533 LAST SURVEY: 3.25 DEG @ 6970

24 HR SUMMARY: DRLG 7230-51. PMP PILL. TOOH DUE TO SLOW PENETRATION RATE. WELL STABLE THRU TRIP. PU PDC BIT, TIH TO 4600. REPAIR SCR HOUSE. FIN IN HOLE. DRLG F/7251-71. CIRC SAMPLE. RESUME DRLG (PINKERTON TRAIL FM) 7271-

10-10-91 MW: 14.2 MD: 7,300' 9.625" @4635' COST: \$1,934,639 LAST SURVEY: 2.86 DEG @ 7287

24 HR SUMMARY: DRLG 7291-7300. CBU WHILE ROT & MOVE PIPE. SHORT TRIP. CBU. DROP MULTI-SHOT & PMP PILL. POOH FOR LOGS. BTR READING F/MULTI-SHOT 2.86 DEG @7287. WO HLS. RU HLS. RIH W/DIL/SON/CAL. TD & IES=7300. LOG. 4 ARM CAL MALFUNCT. POOH. WK ON 4 ARM CAL.

- 10-13-91 MW: 14.0 MD: 7,300' 9.625" @4635' COST: \$2,051,181
  72 HR SUMMARY: FIX CAL. RIH W/DNL/GR/CAL TO 7300. LOG 7300-4626. POOH. RIH
  W/GEOPHONE TO 7300. RUN CK SHOT SURVEY. RIH W/DIPMETR TO 7300. LOG 73004626. RIH TO 7300 W/DNL/GR. LOG F/7300-4626. RD HLS. RIH W/2 7/8" TBG. CIRC
  CONT TIH TO 7300. CIRC & COND. PMP SPACR & 72 BBL CMT. DISPL BAL PLG W/INV
  MUD. POOH. CIRC. POOH. P-TST BOPE. PERF FM INTEG TST. PU DP & RR BIT #10.
  TIH TO CSG SHOE @4600. REPL BRK PADS. C & C MUD. TIH TAG CMT SCABS @6070.
  WASH TO 6350. WASH GRN CMT F/6350-6535. CBU. WASH CMT 6535-6625. CIR. POOH.
- 10-14-91 MW: 14.1 MD: 7,300' 9.625" @4635' COST: \$2,089,764
  24 HR SUMMARY: TIH W/2 7/8" TBG TO 6625. CIRC. MIX & PMP 200 SX CMT & DISPL W/100 BBL INVERT MUD. POOH ABOVE SHOE @4535. CIRC. WOC. TAG TOC @6300. CMT NOT FULLY SET. MIX PILL TO POOH.
- 0-15-91 MW: 14.2 MD: 7,300' 9.625" @4635' COST: \$2,108,120
  24 HR SUMMARY: POOH W/TBG. RIH W/BIT #RR4 TO CSG SHOE. BRK CIRC. CONT TIH,
  W & R F/6229-6460. TAG TOC @6310. CIRC CLN @6460. DRLG CMT F/6460-6519.
  CIRC CLN. PMP PILL & POOH W/BIT. LD BIT, PU BUILDING ASSY.
- 10-16-91 MW: 14.2 MD: 6,560' 9.625" @4635' COST: \$2,131,745 LAST SURVEY: 1.6 DEG @ 6498
  - 24 HR SUMMARY: PU BIT #8 W/BUILDING ASSY. TIH TO 6529. ORIENT TOOL FACE. PROB W/MWD RESPONSE @SURF. SWITCH PMPS. MWD OK. CONTROL DRLG F/6529-6543. SERV RIG. FUNC TST RAMS. CONTROL DRLG F/6543-6560. SALT IN SAMPLES.

PAGE 5 CHEVRON DRILLING DATABASE
PQR0304 OPERATIONS SUMMARY REPORT
AREA: PARADOX BASIN DIVISION: DENVER

OP/NONOP: CHEVRON OPERATED CATEGORY: EXPLORATORY

RIG TYPE: LA

11-19-91

16:29:24

10-17-91 MW: 14.0 MD: 6,724' 9.625" @4635' COST: \$2,167,304

LAST SURVEY: 16.3 DEG @ 6655

24 MP SUNMARY: DRIG E/6560-6670 BULLDING ANGLE SURVEY SERV RIG

24 HR SUMMARY: DRLG F/6560-6670. BUILDING ANGLE. SURVEY. SERV RIG. WK BOPE. DRLG F/6670-6724. BUILD ANGLE. SURVEY.

UNIQUE CODE: HDE1FF01

10-20-91 MW: 14.2 MD: 7,055' 9.625" @4635' COST: \$2,254,943 LAST SURVEY: 47.1 DEG @ 6988 S 44 W

WELL: CANE CREEK #1-36

RIG: GRACE 273

API: 43-037-31631

72 HR SUMMARY: PMP PILL. POOH FOR BIT. WK BLIND RAMS. RIH W/NEW BIT W/BUILD ASSY. DRLG F/6724-37 (ANHYDRITE). DRLG 6737-6832 (SALTS). BUILD ANGLE & SURVEY. CIR CLN. PMP PILL. POOH. DNLOAD MWD MEMORY EQ. LD MUD MTR. PU .75 DEG MUD MTR & STEERABLE SYST FOR TANG SECT. TIH. DRLG 6832-6949 & SURVEY. TOOH TO CHG MTR ASSY TO BUILD. DNLOAD MWD MEM TO COMPUTER. TIH W/BUILD ASSY ON HEAVY WT DP TO SHOE. CUT DRLGLINE. CONT IN HOLE. TOOH PARTIALLY TO RET DP SCREEN. FIN IH. LOST 45 BBLS MUD ON TRIP. ORIENT TOOL. DR 6949-7055.

- 10-21-91 MW: 14.1 MD: 7,162' 9.625" @4635' COST: \$2,288,803 LAST SURVEY: 65.10 DEG @ 7115 S 43.7 W 24 HR SUMMARY: DRLG F/7055-7131. TOP CANE CRK A @ 6990 TVD, 7105 MD. WK BOPE. DRLG 7131-62. @7162 INCL 71.9 DEG, AZ 225, 7012 TVD.
- 10-22-91 MW: 14.0 MD: 7,242' 9.625" @4635' COST: \$2,326,542 LAST SURVEY: 74.20 DEG @ 7179 S 44.4 W 24 HR SUMMARY: DRLG AHEAD IN CANE CREEK "A" AT 3.33 FPH AT 7242'.
- 10-23-91 MW: 14.1 MD: 7,297' 9.625" @4635' COST: \$2,357,795 LAST SURVEY: 83.40 DEG @ 7241 S 44.0 W 24 HR SUMMARY: DRLG AHEAD IN CANE CREEK "B" TO 7,297' MD. NO SIGNIFICANT GAS SHOWS.
- 10-24-91 MW: 14.2 MD: 7,350' 9.625" @4635' COST: \$2,375,384
   LAST SURVEY: 89.80 DEG @ 7304 S 45.4 W
  24 HR SUMMARY: DRLG F/7297-7350. CIRC & SURVEY. SHORT TRIP. CCM FOR CSG. POOH. WO LD CREW. LD DP, DNLD MWD DATA.
- 10-27-91 MW: 12.3 MD: 7,356' 7.0" @7350' COST: \$2,651,073
  72 HR SUMMARY: RU CSRS. TIH W/7" CSG TO 7350. NO TGT SPOTS ON HOLE PROBS.
  CCM FOR CMT JOB. CIRC. HOLE TAKING FLUID. SLOW PMPS, HOLE STABLE. PMP SPCER
  AND 630 SX CMT. DISPL. BMP PLG & PRESS UP TO 1800 PSI. OK. CONSTANT RETURNS
  THRUOUT. MAKE ROUGH CUT. CHG PIPE RANS TO 3.5". NU TBG HD & TST OK. NU BOPE
  & TST. INST DRAIN PAN. PU 4 3/4" DCS & 3.5" DP. TIH & TAG @7257. P-TST CSG
  TO 3500, OK. DR FC & CMT TO 7339. P-TST CSG, OK. DR CMT & FS F/7339-56. DR
  NEW FM F/7350-56. DECR MW TO INC GAS UNITS. WK PIPE.
- 10-28-91 MW: 10.6 MD: 7,356' 7.0" @7350' COST: \$2,685,436
  24 HR SUMMARY: DEC MW. WK PIPE & RE-ENTER HOLE TO CHK FOR FILL. POOH TO PU
  MUD MTR. PU SAME & MWD, TST & CALIB. POOH PU PDC BIT & TIH.
- 10-29-91 MW: 10.0 MD: 7,639' 7.0" @7350' COST: \$2,719,127 LAST SURVEY: 94.5 DEG @ 7591 24 HR SUMMARY: CONT TIH W/ MUD MOTOR. TAG BTM @ 7356. DRLG F/ 7356-7639.

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CHEVRON DRILLING DATABASE OPERATIONS SUMMARY REPORT DIVISION: DENVER 11-19-91 16:29:24

AREA: PARADOX BASIN WELL: CANE CREEK #1-36

OP/NONOP: CHEVRON OPERATED

CATEGORY: EXPLORATORY

RIG TYPE: LA

RIG: GRACE 273 API: 43-037-31631

UNIQUE CODE: HDE1FF01

10-30-91 MW: 10.0 MD: 7,878' 7.0" @7350' COST: \$2,748,576 LAST SURVEY: 94.5 DEG @ 7591

- 24 HR SUMMARY: DRLG F/7639-52. REPAIR GEOLOGRAF. DRLG F/7725-7816. CBU FOR SAMPLE & SURVEY. DRLG F/7816-78. CBU FOR SAMPL & SURVEY. POOH. PU DST.
- 10-31-91 MW: 10.0 MD: 7,878' 7.0" @7350' COST: \$2,769,544 LAST SURVEY: 94.5 DEG @ 7591
  - 24 HR SUMMARY: CONT RIH DST. RU FOR DST. SET PKR @7100. OPEN FOR DST. START FLOW ON 1/8" CHK. FLOW FOR 10 MINS. SLGT BLOW. SWI FOR 45MIN. OPEN & FLOW 60 MINS. LEFT WELL SI FOR 4 HRS. RD SURF EQ. FILL TRIP TANK & POOH. LD DST. RECOV 1200 OF DRLG. FINAL SI DP PRESS 1154. LOST 60 BBLS MUD TO FM ON TOOH. PU PDC BIT & START IN HOLE.
- MW: 9.7 MD: 7,961' 7.0" @7350' COST: \$2,880,049 LAST SURVEY: 94.2 DEG @ 7917 S 48.9 W 72 HR SUMMARY: TIH W/PDC BIT. WASH F/7376-7531 DUE TO DRAG. W & R THRU TGT SPOT @7727. WASH TO TD 7878. CBU. SHORT TRIP TO CSG SHOE & BACK TO TD. CBU. PMP PILL. TOOH. RIH W/6" DIAMOND CORE BIT. TGT SPOT @7440. TIH TO 7878. BRK CIRC. CBU. WK PIPE TO UNPLG CORE BBL. NO SUCCESS. TOOH W/CORE BBL. INSPECT BBL, NO PLG, TEMP EXPANSION. RESPACE & ORIENT. TIH SLOWLY. CORE UPPER CANE CK "B" F/7878-7910. GAS INC WHILE CORING. CBU. TOOH. FULL RECOV. RIH W/ SPIRAL HWDP. RIH W/BIT & MUD MTR. TIH TO SHOE. W & R TO TD. DRLG F/7910-61. SURVEY EVERY 30'.
- 11-04-91 MW: 9.5 MD: 8,316' 7.0" @7350' COST: \$2,907,623 LAST SURVEY: 94.2 DEG @ 7917 S 48.9 W 24 HR SUMMARY: DRLG & SLIDING F/7961-8141. CBU. NO DRAG OR HOLE PROBS. SD DUE TO MWD READINGS, NOT FLAGGING CORRECTLY. DRLG & SLIDING F/8141-8316.
- 11-05-91 MW: 9.4 MD: 8,600' 7.0" @7350' COST: \$2,939,636 LAST SURVEY: 89.9 DEG @ 8454 S 48.8 W 24 HR SUMMARY: DRLG F/8316-28. ROT WHILE DR. CIR SAMPLES, ANHYDRITE IN SAMP LES. ORIENT TOOL FACE TO BUILD ANGLE. DR F/8328-35. SLIDE. ORIENT TOOL TO MAINTAIN MAX BUILD ANGLE. DR F/8335-60. CBU. DR 8360-8549. BUILD ANGLE TO 91.2 DEG. SURVEY, CBU. SHORT TRIP. DR & ROT F/8549-8600.
- 1-06-91 MW: 9.4 MD: 9,048' 7.0" @7350' COST: \$2,977,889 LAST SURVEY: 91.5 DEG @ 9073 S 51.8 W 24 HR SUMMARY: DRLG F/8600-44. CIRC SAMPLES, STILL IN UPPER CANE CK B. DRLG 8644-8829. CBU. SHORT TRIP. DRLG 8829-9048. BUILD ANGLE TO GET OUT OF ANHYDRITE.
- 11-07-91 MW: 9.3 MD: 9,267' 7.0" @7350' COST: \$3,000,976 LAST SURVEY: 89.1 DEG @ 9230 S 52.2 W 24 HR SUMMARY: DRLG F/9048-79. CBU & SURV. SHORT TRIP, HOLE IN GOOD COND. ORIENT TOOLFACE. DRLG & SURVEY F/9079-267. GAS INC TO 730 UNITS F/9253-56. CBU FOR SHORT TRIP. CBU TOOH FOR LOGS. RU LOGGERS.

PAGE 7 CHEVRON DRILLING DATABASE 11-19-91
PQR0304 OPERATIONS SUMMARY REPORT 16:29:24
AREA: PARADOX BASIN
WELL: CANE CREEK #1-36 OP/NONOP: CHEVRON OPERATED
RIG: GRACE 273 CATEGORY: EXPLORATORY RIG TYPE: LA

11-10-91 MW: 10.1 MD: 9,267' 7.0" @7350' COST: \$3,093,008

LAST SURVEY: 89.1 DEG @ 9230 S 52.2 W

72 HR SUMMARY: RIH W/LOG TOOL TO 6592. RUN & SEAT SIDE ENTRY SUB IN LOG
TOOL. TIH TO CSG SHOE @7350. LOG TO 9240. RUN REPEAT F/9240-8961. TOOH.
RIH W/DNL- FACT-GR. SEAT SIDE ENTRY SUB. TIH TO SHOE. LOG F/7350-9231. LOG
UP F/9231-7350. TOOH. RIH W/CBL TO 7100. LOG F/7100-4700. TOC @5350. POOH
W/CBL. TIH W/PKR. WO COIL TBG. RU COIL TBG UNIT. TST LINES. TIH W/COIL TBG
INJ N2. BLOW DRY @7350. WO FL ENTRY. WELL DRY. POOH. RU WL. TIH W/GUAGERNG
TO 6741. WO FL ENTRY. HOLE. DRY. POOH. RIH W/PRESS BOMB TO 6680. HUNG UP
ABOVE N NIPPLE. ATTPT TO WK PAST, NO SUCCESS. NO FL PRESENT. POOH.

UNIQUE CODE: HDE1FF01

- 11-11-91 MW: 10.0 MD: 9,267' 7.0" @7350' COST: \$3,074,772

  LAST SURVEY: 89.1 DEG @ 9230 S 52.2 W

  24 HR SUMMARY: RIH W/1.8" GUAGE RING. TAG @6680, UNABLE TO WK THRU. POOH. RIH W/PRESS GUAGE, SOFT SET @6660 WL. WO PRESS BUILDUP. POOH. REL PKR & POOH. REL PKR & POOH. WO 7" CICR.
- 11-12-91 MW: 9.9 MD: 9,267' 7.0" @7350' COST: \$3,096,363

  LAST SURVEY: 89.1 DEG @ 9230 S 52.2 W

  24 HR SUMMARY: WO CICR. TIH W/7" CICR TO 7222. WO CMT SERVICES. SET CICR @

  7222. EST IR. PMP 400 SX NEAT CMT, SQZ 380 SX BELOW CICR. SPOT 18SX ON TOP.
  POOH. P-TST CSG, OK. TST BOPE. TIH TO 5372. SET EZSV & TST. SPOT 18 SX CMT
  ON TOP OF EZSV. POOH. SPOT BAL PLG F/4683-4333.
- 11-13-91 MW: 9.9 MD: 9,267' 7.0" @7350' COST: \$3,052,517 24 HR SUMMARY: RD. RU LD MACHINE. LD DP. ND BOPE.

API: 43-037-31631

11-14-91 MW: MD: 9,267' 7.0" @7350' COST: \$3,063,688
24 HR SUMMARY: ND BOPE. INST BLANK COVER ON WH. CLN MUD TANKS. REL RIG.

PAGE 1 POR0304 CHEVRON DRILLING DATABASE OPERATIONS SUMMARY REPORT 12-09-91 10:52:59

AREA: PARADOX BASIN

DIVISION: DENVER

OP/NONOP: CHEVRON OPERATED

WELL: CANE CREEK #1-36 RIG: POOL

CATEGORY: EXPLORATORY

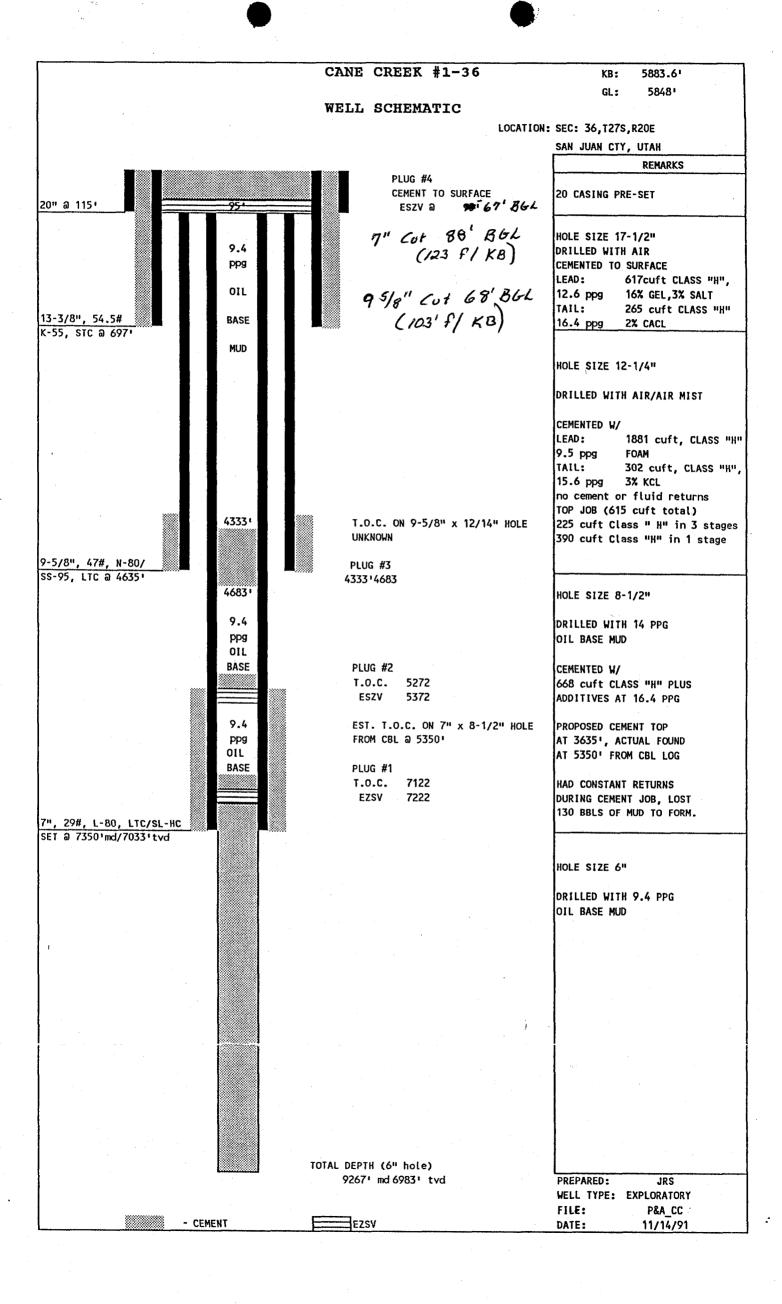
RIG TYPE: LA

API: 43-037-31631

UNIQUE CODE: HDE1FF01

2-02-91 MW: MD: 9,267' 7.0" @7350' COST: \$3,094,583
72 HR SUMMARY: MIRU PROD LOG SERV, RUN TEMP LOG TO 4315. ATTPT TO INJ WASTE WTR DN 13 3/8" & 9 5/8" ANN, NO SUCCESS. RDMO. MIRU POOL WS. RIH W/MECH CSG CUTTER. CUT 7" CSG @88' GL. POOH. LD 7" CSG. RD WH. RIH W/9 5/8" CSG CUTTER. COULD NOT GET PAST 75' GL. CUT CSG @68'. POOH. SWIFN. 12-02-91 MW:

2-03-91 MW: MD: 9,267' 7.0" @7350' COST: \$3,145,357
24 HR SUMMARY: LD TOOLS. SPEAR 9 5/8" CSG. LD 9 5/8" CSG. SET 13 3/8" CMT
RET @67' GL. CIRC 65 SX CL H CMT TO SURF. CLN CELLAR. CUT OFF WH & BASE PLT 12-03-91 MW: RD POOL WSU. WELD P & A PLATE ON WELL.



# STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OUR GAS AND MINING



DIVISIO	ON OF OIL, GAS, AND MI	NING	ML-43691
SUNDRY NOTI (Do not use this form for proposi Use "APPLICA	CES AND REPORTS ( the to drill or to deepen or plug to TION FOR PERMIT—" for such p	ON WELLS back to a different reservoir.	6. IF INDIAN, ALLOTTER OR TRIBE NAME
OIL GAS X OTHER		NEGBUY BILL	7. UNIT AGREEMENT NAME
Chevron U.S.A. Inc.		NOV 2 5 1991	8. FARM OR LEASE NAME
. ADDRESS OF OPERATOR		1101 2 3 1771	9. WELL NO.
P.O. Box 599, Denver,	the state of the s	DIVISION OF	Cane Creek St. 1-36
i. LOCATION OF WELL (Report location ci See also space 17 below.) At surface	early and in accordance with any	SOFT-GAS-SIMINING	Wildcat
2442' FEL, 1728' FSL			11. and, T., R., M., OR BLK. AND SURVEY OR AREA
			Sec. 36, T27S, R20E
14. PERMIT NO.	1 15 Transmort (Chartes the house		12. COUNTY OR PARISH 18. STATS
43-037-31631	15. BLEVATIONS (Show whether or	r, RT, GR, etc.)	San Juan UT
16. Check Ap	propriate Box To Indicate N	lature of Notice, Report, or	Other Data
NOTICE OF INTER	PION TO:	80361	QUANT ARPORT OF:
TEST WATER SEUT-OFF	ULL OR ALTER CASING	WATER SHUT-OFF	REPAIRING WELL
PRACTURE TREAT	CULTIPES COMPLETE	PRACTURE TREATMENT	ALTERING CABING
	BANDON®	SHOUTING OR ACIDIZING	ABANDONMENT*
(Other)	HANGE PLANS	(Other) (Nors: Report resul	its of multiple completion on Well spletion Report and Log form.)
T APPENIES BROWNERS AN COUNTY PERSON	RATIONS (Clearly state all pertinen	t dutuile and give pertinent date	es, including estimated date of starting any ical depths for all markers and zones perti-
CAS	9-5/8", 47 PF 7", 29 PPF, N WEIGHT: 9.4 PPG	115' PPF, K-55, ST&C at 697' PF, N-80/SS-95, LT&C at 46 N-80, set at 7350' MD/7033 HOLE SIZE: 6 inch	TVD
OPERATIONS: The following Pa on November 11,		d and approved by Mr. F. M	lathews, State of Utah, D.O.G.M.
1. After completing the test	ing of the well, proceed	with the following:	
2. M/U Halliburton 7", 29 Pl	PF ESZV cement retainer ar	nd RIH on 3-1/2" drill pic	e. Set EZSV at ±7250' MD.
<ol> <li>R/U to cement, establish theoretically fill the 6' in place by either 1) squ</li> </ol>	an injection rate into the open hole, 7" casing and leezing to a max. 1 psi/ft	ne Cane Creek. Plans are I place 50-100' of cement gradient or 2) stopping	to mix and pump enough cement to on top of retainer. Put cement when the estimated cement volume oo excessive, otherwise reverse
cement plug from top of r	etainer at 5400' to 5300'	MD (±50' above & below e	,000 lbs down. Set a balanced stimated top of cement as picked is to minimize wait on cement tim
18. I hereby certify that the foregoing	a true and correct	(Continue	d on attached sheet.)
SIGNED & SUDIA	TITLE	Permit Specialist	DATE 11/19/91
(This space for Federal or State of	ice use)		
APPROVED BY	TITLE		DATE

STATE OF UTAH FORM OGC-1b SUNDRY NOTICES AND REPORTS ON WELLS

Chevron U.S.A. Inc. Cane Creek St. 1-36

OPERATIONS (Cont.) The State of Utah requires that this plug be tested by applying drillstring weight. If the cost of the retainer, round trip of the drillstring can be performed in a timely manner compared to setting a plug and W.O.C. then this is the preferred option.

- 5. POOH to 4685', set a balanced cement plug from 4685' to 4332' ( $\pm$ 50' below 9-5/8" casing shoe to 50' above top salt picked from open hole logs at 4382').
- 6. POOH laying down drillstring.
- 7. M/U casing cutter, RIH to 100', displace oil mud with water, cut 7" and 9- 5/8" casing  $\pm 100'$ . If practical, nipple down BOPE at this time. Recover casing and wellhead.
- 8. M/U 13-3/8" ESZV and set above the casing stubs. Mix and pump enough cement to fill from EZSV to surface, POOH.
- 9. M/U 13-3/8" casing cutter and cut 10' below cellar level or an equivalent depth to recover wellheads.
- 10. Weld on abandonment cap and post. Ensure well information is placed on pole.

# STATE OF UTAH DEPARTMENT OF NATURAL RESCURCES DIVISION OF OIL, GAS, AND MILES

DI	VISION OF	OIL, G	AS, AN	D MI	IN I	il iv		AIIU	<b>\</b>		ML-43		ON AND SERIAL	, NO.
WELL CON	APLETION	I OR	RECO	MPLETI	ON F	REPORT	ΔN	D LOG	*	6. IF 1	NDIAN,	ALLGI	TEE OR TRIBE	NAME
1a. TYPE OF WELL		LL XX	GAS WELL	7						7. UNI	r AGREI	EMENT	NAME	
L TYPE OF COMP		err 570	WELL L	DI ليد	RT L	Other	<del></del>				:			
WELL XX	WORK DE	EP-	PLUG BACK	DIFF	vr.	Other				S. FAR	M OR L	EASE	NAME	
2. NAME OF OPERATO					16	भादा कार्या	37776	MARIN		9. WEI	T NO			
Unevron 3. Address of open	U.S.A. Ir	1C	e e e e e e e e e e e e e e e e e e e		18	(13/6)	<b>)</b> [[]	11311		]		ر مور	k St. 1-3	6
	k 599, De	2011010	Callax	i Sada O	020			30	)				, OR WILDCAT	<u> </u>
4. LOCATION OF WELL	L (Report locat	ion clearl	UUIUI	accordance	with an	JANA 1	.3.1	999	······		i 1dca			
At surface 24						. Emiliard.							BLOCK AND SO	DVEY
At top prod. inte	rval reported b	elow 1	608 FS	L 2587	FEL	DIVIS				Se	ec. :	36,	T27S,R20E	
At total depth	554 FSL 1	1043 F	WL			OIL GAS	& MI	NING					,	
	1 1			14. PE	RMIT NO.		DATE	ISSUED			UNTY O	R	13. STATE	
					-037-		7:	-11-91			Juan		Utah	
15. DATE SPUDDED	16. DATE T.D.	REACHED	17. DAT	E COMPL.	(Ready t ⊃N	o prod.)	8. ELE	VATIONS (DF	, RKB, I	CI E	rc.)*		LEV. CASINGHE.	
9-6-91	11-7-91		<u>।।८-५</u>	or morro	DRLG	YAMMUC L	)F 5	KB_	5883	GL 58			A (remove	
9267 MD 9267 MD 983	TVD 21. PI	ug, BACK	T.D., MD & D 2.A	A GANTO	HOW M	TIPLE COMPL ANY	•••	23. INTER	ED BY	0-92	17 1001 267	.s.	CABLS 1001	
24. PRODUCING INTER	VAL(S), OF THE	Irface	TION—TO	, BOTTOM,	NAME (1	MD AND TVD)	•		<u> </u>			25	. WAS DIRECTION	NAL
											***	.	Yes	
26. TIPE ELECTRIC A	ND OTHER LOGS	RUN			<del></del> .					<u> </u>	<del></del> 1	27. W	AS WELL CORED	
DTI GP	LSS, FWS	DID	CAST	CDLT	C/DS	N Char	· ke h	0. <del>†</del>				Y	es	
28.	LUUS FMS	DIP.				ort all string			<del></del>	***************************************				
CASING SIZE	WEIGHT, LE	./FT.	DEPTH S			LE SIZE	T		ENTING	RECORD			AMOUNT PUL	LED
20"			11	5		26					-			• (
13 3/8"	54.5#	<del> </del>	69		-	17 1/2		265	SX				None	
9 5/8"	47#		463			12 1/4		1265					68'	
7" .	29#		735	0		8 1/2		630	SX	م وادان مصروب براده	·		88 '	
29.		LINER	RECORD	)				30.	<del></del>	rubing				
SIZE	TOP (MD)	BOTTO	M (MD)	SACKS C	EMENT*	SCREEN ()	MD)	SIZE		DEPTH 8	ET (MI	D)	PACKER SET (	MD)
	7	572	21ना	प्राप्तत	7		·············							
31. PERFORATION REC	ORD (Interval,	相協	لاطاوا	UE	113	32.	A	CID, SHOT.	FRACT	URE, C	EMENT	r squ	EEZE, ETC.	
A Commence of the Commence of		سلقالي			Y)	DEPTH II	NTERVA	L (MD)	AM	COUNT A	D KINI	D OF	MATERIAL USED	
Care Social		EI	N 13	1992		464	7		2	250 SX	Cmt	t (H	)	
		101	414 1 3	1775		465	5		2	250 SX	<u>Cmt</u>	t (H	)	-
		DI	VISION	OF		-	<del></del>					<u></u>		<u>.                                    </u>
33.•	NAME OF THE OWNER OWNER OF THE OWNER	OIL	AS &	VINING	PRO	DUCTION	<del></del>	<u> </u>						
DATE FIRST PRODUCT	PRO PRO	DUCTION	METHOD (	Flowing, g	as lift, p	umping—siz	e and	type of pum	p)			STATU: t-in)	s (Producing o	7
DATE OF TEST	HOURS TESTE	D CF	IONE SIZE		N. FOR PERIOD	OIL—BÁL.		GAS-MC	F.	WATE	Ř—BBL	•	GAS-OIL RATIO	
PLOW. TUBING PRESS.	CASING PRESS		LCULATED		-BBL.	GAS-	— M.C.F.		WATER-	BBL.		OIL G	RAVITT-API (COI	ik.)
			-		· · · · · · · · · · · · · · · · · · ·									
34. DISPOSITION OF G	AS (Sold, used )	for fuel, v	ented, etc.	.)						TEST	WITNES	ised b	T.	
35. LIST OF ATTACH						a version de la company de la company de la company de la company de la company de la company de la company de				<u> </u>	<del></del>	•		•
Drilli 36. I hereby certify	ng & Comp	oing and	1 SUMM attached	ary informatio	n is com	plete and co	rrect s	as determine	d from	all ava	lable r	ecords	1/8/09	*****
SIGNED Q	SWA	150	7	T	ITLE _	Permit	Spe	cialist			DATE	s <u>1</u>	2-19-91	
//	_													

\*(See Instructions and Spaces for Additional Data on Reverse Side)

# INSTRUCTIONS

or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be , particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments

should be listed on this form, see Item 35.

Consult local State sem 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements.

Here 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. Heres 22 and 24: If this well is completed for separate production from more than one interval zone (militiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Sacks Gement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

(See instruction for items 22 and 24 above. Hem 33: Submit a separate completion report on this form for each interval to be separately produced.

TENTE THEREOF: CORED INTERVALLS; AND ALL DELLL-STEM TESTS, INCLUDING SS. GROLOGIC MARKERS	DESCRIPTION, CONTENTS, STC.	Siftstone, anhydrite, shale	Siltst	Moekopi 1104	Siltstone	Honaker Trail 2886 +2998	F	01e US/	Tal pressure 3/8/ ps1 Desert Creek	ial flow 10 min. AKAH 4909	ial shut-in pressure 1588 psi   Rarker Creek   5603 +	lat shut-in 45 min	1 flow pressure 606 psi	Bace of Calt 7181	101/ 101/	shut-in pressure 1141 pst	Rec 1200' drilling mud	υ <u>+</u>	displace mud	Blew well dry - 2 hours	Shut-in 30 min.	
		Silts	Siltst		Siltst		F	Upen-noie USI		la]	jal	B	1 flow-pressure 606	<b></b> -	_		Rec 1200	Blow n	displace mud	Blew well dry - 2 hours	Shut-in 30 min.	No fluid ontro
37. SUMMARY OF POROUS ZONES: AHOW ALL IMPOUNTY SOURS OF POROSTY AND CONTENTS THEREOF; CORE DEPTH HYBRAL REALE, CURRICH USED, THEN POOL OPER, FLOWING AND	FORMATION TOP BOTTOM	Vertical Cane CreekB 7018.0 7047.5			ane Creek B 7878.0 7910.8			Cane Creek B / 350 / 8/8									Horizontal			**************************************		



Dianne R. Nielson, Ph.D.
Division Director

# State of Utah DEPARTMENT OF NATURAL RESOURCES

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

355 West North Temple 3 Triad Center, Suite 350 Salt Lake City, Utah 84180-1203 801-538-5340

May 7, 1992

Ms. Mary Jo Kapphahen-Brough Chevron, USA, Inc. Post Office Box 599 Denver, Colorado 80201

Dear Ms. Kapphahen-Brough:

Re: <u>Cane Creek State 1-36</u>, <u>API No. 43-037-31631</u>, <u>Sec. 36</u>, <u>T. 27S., R. 20E.</u>

The Well Completion or Recompletion Report and Log submitted for the above referenced well indicates that a directional survey was made and the well was cored. We therefore request that you furnish copies of the directional survey and core analysis reports in order to comply with the Oil and Gas Conservation General rules. In the event that drill stem testing occurred on the well, those reports are also required.

If you have any questions regarding this request, please do not hesitate to contact me at the above address or phone number.

Sincerely,

Vicky Carney

Duby Carney

Production Group Supervisor

cc: R. J. Firth

D. T. Staley

L. D. Clement

File



#### Chevron U.S.A. Inc.

6400 South Fiddler's Green Circle, Englewood, CO 80111, P.O. Box 599, Denver, CO 80201

June 9, 1992



DIVISION OF OIL GAS & MINING

Vicky Carney
Department of Natural Resources
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

Dear Vicky,

Enclosed you will find the directional survey, core analysis, and drill stem test data you requested for the Chevron Cane Creek State 1-36, API No. 43-037-31631, sec. 36 T27S-R20E. I was asked to handle this for Mary Jo Kapphahen-Brough.

I hope this will fill the requirements for the Oil and Gas Conservation General rules. Please contact Mary Jo if you require additional information.

Sincerely,

Kathy M. Koskelin Development Geology

cc: Mary Jo Kapphahen-Brough Files

7-31-92 recd:

RECORD OF SURVEY
FULL DIAMETER DEAN - STARK ANALYSIS
STAR - PRESSURE DATA REPORT

REPORT NO. 125180

PAGE NO. 1

### STAR

Schlumberger

TEST DATE: 31-0CT-91

Schlumberger Transient Data Report

Pressure Data Report Of a Schlumberger Well Test

COMPANY: CI	HEVRON USA,	INC.	WELL: CANE	CREEK #1-36	6 - OH-DST #1			
			WELL LOCATION Field					
		1 CANE CREEK	County	• • • • • • • • • • • • • • • • • • • •	GRAND			
		7100 to 7878	State					
	nce	KB	Elevation (ft)					
HOLE CONDIT		0005	MUD PROPERT		VED010011			
	(MD/TVD) (ft)		Mud Weight (lt		VERSIDRIL			
		7"- 29#/FT			0.23 © 68F			
Perf'd Interv	val/Net Pay (	ft) / 528	Filtrate Resis	stivity (ohm.	m) 0.22 © 68F			
	Diameter (in		Filtrate Chlor					
	ST CONDITIO	1	TEST STRING		· .			
	Static (psi)	3787.40	Collar Length		6147 / 2.60    n) 909 / 2.25			
Surface Press	sure (psi)		Packer Depths					
Liquid Cushid	on Type	• • • • •	Bottomhole Cha					
	th (ft)	• • • •			7079/1401			
NET PIPE RE	1		NET SAMPLE	<u> </u>	<del>                                     </del>			
Volume	Fluid Type		Volume	Fluid Type	Properties			
1200 ft	DRILLING MUD	RwO.23©68F	2500 cc	Mud	RwO.23©68F			
			Pressure:	GOR: 0	GLR: 0			
INTERPRETO	TION RESULT	ς	ROCK/FLUID/I	JELL BORE PE	ROPERTIES			
	avior	· ·	Oil Density (		4 1			
	sed for Analy		Basic Solids					
	essure (psi)		Gas Gravity GOR (scf/STB)	• • • • • • • • • • • • •	••••			
	lity (md.ft/c <sub> </sub> -meability (m		Water Cut (%)		• • • •			
	Damage Ratio		Viscosity (cp)					
Storativity F	Ratio, Omega	• • • • •	Total Compress					
	low Coef., Lam		Porosity (%) . Reservoir Temp					
	an Anomaly (f vestigation (		Form. Vol. Facto					
	ic Surface (f							

#### PRODUCTION RATE DURING TEST: Data Report

#### COMMENTS:

THIS TEST WAS MECHANICALLY SUCCESSFUL. THIS ZONE PRODUCED DRILLING MUD INTO THE DRILLSTRING DURING THE TEST.

THE GENERAL CHARACTER OF THE BUILDUP PLOTS SUGGEST THAT THE ZONE HAS LOW EFFECTIVE PERMEABILITY AND SOME WELLBORE DAMAGE AT THE TIME AND CONDITIONS OF THE TEST.

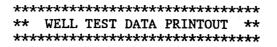
REPORT NO. 125180

PAGE NO. 2

## SEQUENCE OF EVENTS

Schlumberger

DATE	TIME (HR:MIN)	DESCRIPTION	ET (MINS)	BHP (PSIA)	WHP (PSIG)
		====##================================			· · · · · · · · · · · · · · · · · · ·
31-OCT	06:20	SET PACKERS	-35	3787	
	06:55 07:00 07:05	START FLOW 1/8" CHOKE 10 1/2 OZ. 10 OZ.	0 5 10	294	
	07:05	END FLOW & START SHUTIN	10	1588	
	07:50	END SHUTIN	55	1033	
	07:54 07:59 08:04 08:09 08:14 08:19 08:24 08:29 08:34 08:39 08:44 08:49 08:54	RE-OPENED TOOL 7 OZ. 6.5 OZ. 6.5 OZ. 6.25 OZ. 6.25 OZ. 5.5 OZ. 4.5 OZ. 3.25 OZ. 2.25 OZ. 1.50 OZ. 1 OZ. 1 OZ.	59 64 69 74 79 84 89 94 99 104 109 114 119	533	JUN 1 1 1992  DIVISION OF OIL GAS & MINING
	08:55	END FLOW & START SHUTIN	120	606	
	12:55	END SHUTIN	360	1141	
	12:58	PULLED PACKER LOOSE	363	3731	



COMPANY: CHEVRON U.S.A. WELL: CANE CREEK 1-36 FIELD REPORT NO. 125180

INSTRUMENT NO. 1401

RECORDER CAPACITY: 6400 PSI

PORT OPENING: INSIDE DEPTH: 7079 FT

TEMPERATURE: 120 DEG F

LABEL POINT INFORMATION \*\*\*\*\*\*\*\*

	TIME OF DAY	DATE		ELAPSED	BOT HOLE PRESSURE	
#	HH:MM:SS	DD-MMM	EXPLANATION	TIME, MIN	PSIA	निहिता
1	6:48:18	31-OCT	HYDROSTATIC MUD	-6.70	3787	MEGE
2	6:55:00	31-OCT	START FLOW	0.00	294	1,000
3	7:05:08	31-OCT	BYPASSED MUD	10.14	324	JUN
4	7:06:08	31-OCT	END FLOW & START SHUT-IN	11.13	1588	
5	7:50:44	31-0CT	END SHUT-IN	55.73	1033	DIVIS
6	7:57:04	31-OCT	START FLOW	62.07	533	<del>-</del> -
7	8:53:34	31-OCT	END FLOW & START SHUT-IN	118.57	606	OIL GAS
8	12:58:02	31-OCT	END SHUT-IN	363.04	1141	
- 9	12:59:47	31-OCT	HYDROSTATIC MUD	364.78	3731	



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#### SUMMARY OF FLOW PERIODS \*\*\*\*\*\*\*

PERIOD	START ELAPSED TIME,MIN	END ELAPSED TIME,MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	INITIAL PRESSURE PSIA
1	0.00	11.13	11.13	294	1588	294
2	62.07	118.57	56.50	533	606	533

#### SUMMARY OF SHUTIN PERIODS \*\*\*\*\*\*\*

PERIOD	START ELAPSED TIME, MIN	END ELAPSED TIME,MIN	DURATION MIN	START PRESSURE PSIA	END PRESSURE PSIA	FINAL FLOW PRESSURE PSIA	PRODUCING TIME, MIN
1 2	11.13	55.73	44.60	1588	1033	1588	11.13
	118.57	363.04	244.47	606	1141	606	67.63

[JUN.1 1 1992

DIVISION OF OIL GAS & MINING



TIME OF DAY HH:MM:SS	 ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA
6:55:00	 0.00	0.00	294
7:06:08	11.13	11.13	1588

TEST PHASE: SHUTIN PERIOD # 1

FINAL FLOW PRESSURE - 1588 PSIA PRODUCING TIME - 11.13 MIN

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
	31-OCT 31-OCT 31-OCT 31-OCT 31-OCT 31-OCT 31-OCT	11.13 14.80 16.09 17.16 18.16 19.43 21.05 22.95 26.12 29.03 32.71 35.03 37.45 40.20 42.62 48.80	0.00 3.67 4.96 6.03 7.03 8.30 9.92 11.82 14.99 17.90 21.58 23.90 26.32 29.07 31.49 37.67	1588 259 676 692 701 718 735 756 790 821 855 877 897 920 938 985	0 -1329 -912 -897 -887 -870 -853 -832 -798 -767 -733 -711 -691 -668 -650 -604	0.6056 0.5111 0.4542 0.4122 0.3694 0.3267 0.2882 0.2412 0.2100 0.1806 0.1660 0.1532 0.1408 0.1314 0.1124
7:49:34 7:50:44	31-OCT 31-OCT	54.56 55.73	43.43 44.60	1026 1033	-562 -556	0.0991 0.0968

TEST PHASE: FLOW PERIOD # 2

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA
7:57:04	31-OCT	62.07	0.00	533
8:13:34	31-OCT	78.56	16.49	554
8:32:37	31-0CT	97.61	35.54	583
8:50:25	31-OCT	115.41	53.34	602
8:53:34	31-OCT	118.57	56.50	606

TEST PHASE: SHUTIN PERIOD # 2

FINAL FLOW PRESSURE - 606 PSIA PRODUCING TIME - 67.63 MIN

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME,MIN	DELTA TIME,MIN	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
8:53:34 8:54:39 8:57:23	31-OCT	119.65	0.00 1.08 3.82	606 623 625	0 17 19	1.8036 1.2719

3



TEST PHASE: SHUTIN PERIOD # 2

FINAL FLOW PRESSURE - 606 PSIA PRODUCING TIME - 67.63 MIN

TIME OF DAY HH:MM:SS	DATE DD-MMM	ELAPSED TIME, MIN	DELTA TIME, MIN	BOT HOLE PRESSURE PSIA	DELTA P PSI	LOG HORNER TIME
8:58:29	31-OCT	123,49	4.92	625	19	1.1687
9:00:27	31-OCT	125.45	6.88	634	28	1.0346
9:01:41	31-OCT	126.68	8.11	638	32	0.9703
9:03:22	31-0CT	128.36	9.79	644	38	0.8981
9:05:17	31-OCT	130.28	11.71	651	46	0.8309
9:07:31	31-0CT	132.51	13.94	659	54	0.7673
9:10:11	31-OCT	135.19	16.62	669	63	0.7049
9:12:48	31-OCT	137.80	19.23	679	73	0.6548
9:15:08	31-OCT	140.14	21.57	686	80	0.6165
9:17:58	31-OCT	142.96	24.39	695	90	0.5767
9:21:13	31-OCT	146.21	27.64	705	100	0.5374
9:25:27	31-OCT	150.45	31.88	720	115	0,4943
9:31:52	31-OCT	156.87	38.30	735	130	0.4418
9:38:41	31-OCT	163.68	45.11	753	147	0.3978
9:43:56	31-OCT	168.93	50.36	768	162	0.3698
9:49:41	31-OCT	174.69	56.12	782	176	0.3434
9:56:01	31-OCT	181.01	62.44	795	189	0.3187
10:01:56	31-OCT	186.94	68.37	807	201	0.2987
10:07:10	31-OCT	192.16	73.59	817	211	0.2831
10:12:11	31-OCT	197.18	78.61	826	221	0.2696
10:18:41	31-OCT	203.68	85.11	840	234	0.2540
10:25:09	31-OCT	210.15	91.58	853	248	0.2402
10:31:44	31-OCT	216.73	98.16	867	261	0.2276
10:38:07	31-OCT	223.11	104.54	880	274	0.2167
10:43:53	31-OCT	228.88	110.31	891	285	0.2077
10:49:52	31-OCT	234.86	116.29	903	297	0.1991
10:56:14 11:01:20	31-OCT	241.23	122.66	915	310	0.1907
11:01:20	31-OCT	246.34	127.77	926	320	0.1845
11:13:26	31-OCT	251.88	133.31	936	330	0.1782
11:13:26	31-OCT	258.44	139.87	949	344	0.1713
11:26:10	31-OCT	265.10	146.53	961	355	0.1648
11:31:55	31-OCT	271.17	152.60	971	365	0.1593
11:39:05	31-OCT	276.92	158.35	982	377	0.1545
	31-OCT	284.09	165.52	995	390	0.1488
11:44:57	31-OCT	289.95	171.38	1006	400	0.1445
11:51:55	31-OCT	296.92	178.35	1018	412	0.1396
11:58:46	31-OCT	303.76	185.19	1031	425	0.1352
12:14:37 12:31:09	31-OCT	319.61	201.04	1058	452	0.1259
	31-0CT	336.15	217.58	1086	481	0.1175
	31-OCT	352.78	234.21	1115	509	0.1102
12:30:02	31-OCT	363.04	244.47	1141	535	0.1061



DIVISION OF OIL GAS & MINING

# TerraTek Geoscience Services®

University Research Park - 360 Wakara Way - Salt Lake City, Utah 84108 - (801) 584-2480 - FAX (801) 584-2408

#### CHEVRON USA. INC

Well:

Cane Creek State 1-36

Field: Drilling fluid: Oil Base

Wildcat

State: County: Utah

San Juan

Location: Sec.36, T27S, R20E Date:

4-NOV-1991

TTCS File #: 5056 Elevation:

5884' KB

DECETIVIS

#### FULL DIAMETER DEAN-STARK ANALYSIS

Sample Vumber	Depth (feet)	P N-S (md)	ermeabil E-W (md)	ity Vert (md)	Porosity %	Satu Oil %	ration H2O %	Grain Density (gm/cc)	Lithology	JUN 1 1 1992
								a da da da da da de int int int un		DIVISION OF OIL GAS & MININ
	7026.0-27.0	.03	.27	981.	5.0	31.1	54.2	2.74 VE	Ss,mgy,vfgr,dol,d	alc,slty,sl/anhy,pof
	7028.0-29.0	.61	.38	2.5	9.5	22.5	61.1			lty,clypof,sa frac
	7031.0-32.0	.03	.08	.02	8.8	23.9	45.9	2.76	Ss,mgy,vfgr,dol,a	
	034.0-35.0	. 42+	.48+	.03	8.8	33.2	54.5	2.70	Ss,mgy,vfgr,dol,s	
	7036.0-37.0	1088.	.50	395.	10.9	18.1	63.2			slty,cly,biot,of,cff
5 7	040.0-41.0	.53+	3.2+	227.	7.2	16.0	65.2	2.73 VE	Ss.mov.vfqr.calc.	dol,slty,mica,cly,of
	7045.0-46.0	.15	.10	.05	6.1	38.2	51.7	2.72	Ss,mgy,vfgr,dol,c	
	047.0-48.0	.19*	.34★	.12	9.1	27.6	54.8	2.72		dol,slty,cly,mica
	7049.0-50.0	1.7	1.0	.22	9.1	25.0	49.5	2.68	Ss,mgy,vfgr,calc,	
	7052.0-53.0	.99	1.5	.13	10.2	14.3	54.6	2.70		sl/dol,cly,sl/mica
11 7	7055.0-56.0	.85	.22	.10	6.5	24.7	49.2	2.76	Sltst,mgy,dol,sl/	anhy.pof
	059.0-60.0	.36+	1.6+	27.	5.4	29.5	56.0	2.69 VE		anhy incl, cly, sa fra
	7067.0-68.0	.15	.07	.05	3.7	12.0	55.3	2.79	Sltst.blk.dol.dis	m pyr,sl/sdy,sa frac
	077.0-78.0	.37	.44	95.	5.4	33.7	56.4	2.70 VE		
	7079.0-80.0	.05	.08	. 96	2.9	35.7	44.8	2.69		lty,sl/anhy,sa frac
.6 7	084.0-85.0	.19	1468.	8948.	6.0	32.2	57.1	2.47 UF	Ss_mov_ufor_calc_	slty,cly,of,sa frac
	084.0-87.0	.07	.06	<.01	4.3	31.0	56.0	2.66		:1/dol,slty,cly,sa
	094.0-95.0	.06	.06	.03	4.1	39.0	50.7	2.64	Ss.mqy.vfqr.sil.s	

<sup>+ -</sup> Dehydration crack affecting permeability

VF - Open vertical fracture present

<sup>\* -</sup> Sample not oriented with respect to north line

# TerraTek Geoscience Services®

University Research Park - 360 Wakara Way - Salt Lake City, Utah 84108 - (801) 584-2480 - FAX (801) 584-2408

CHEVRON USA. INC

Well:

Cane Creek State 1-36

Field:

Wildcat

Drilling fluid: Oil Base

State:

Utah

County: San Juan

Location: Sec.36, T278, R20E

Date:

13-NOV-1991

TTCS File #: 5056

Elevation: 5884' KB

# FULL DIAMETER DEAN-STARK ANALYSIS DATA SUMMARY

Zone Number	Bepth Interval (feet)	Number of Samples	N-S (md)	Permeabi E-W (md)	lity Vert (md)	Porosity %	Satur Oil %	ation H2O %	Grain Density (gm/cc)	
1	7026.0-95.0	18	61.	82. [345.9]	593.	6.8 F2 423	27.1	54.5	2.71	

[] Sample Standard Deviation



DIVISION OF OIL GAS & MINING

Smith International, Inc.



CHEVRON U.S.A.

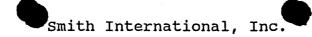
CANE CREEK #1-36
SEC 36-T27S-R20E
SAN JUAN COUNTY, UTAH

Calculated by Minimum Curvature MethodUN 1 1 1992 Vert Sect Plane: 225.00 Deg.

DIVISION OF OIL GAS & MINING

#### - RECORD OF SURVEY -

MEASURED	INCL	DRIFT	COURSE	TRUE	TOTAL		VERTICAL	BUILD	WALK	DOGLEG
DEPTH	ANGLE	DIRECTION	LENGTH	VERTICAL	RECTANGULAR C	OORDINATES	SECTION	RATE	RATE	SEVERITY
(FT)	(DEG)	(DEG)	(FT)	DEPTH	(FT)		(FT)		(DG/100')	
								•	• •	
6486.00	1.50	262.00	0.00	6484.50	46.00 N	36.60 E	-58.41	0.00	0.00	
6498.00	1.60	271.10	12.00	6496.50	45.98 N	36.28 E	-58.17	0.83	75.83	2.21
6528.00	2.40	257.40	30.00	6526.48	45.85 N	35.25 E	-57.34	2.67	-45.67	3.09
•										
6560.00	4.20	243.00	32.00	6558.42	45.17 N	33.55 E	-55.66	5.63	-45.00	6.15
6591.00	8.00	238.50	31.00	6589.24	43.53 N	30.70 E	-52.49	12.26	-14.52	12.35
6623.00	12.20	239.90	32.00	6620.74	40.67 N	25.87 E	-47.05	13,13	4.38	13.15
6655.00	16.30	238.50	32.00	6651.75	36.63 N	19.11 E	-39.41	12.81	-4.38	12.86
6690.00	20.90	234.20	35.00	6684.91	30.40 N	9.86 E	-28.47	13.14	-12.29	13.71
6722.00	25.20	232.80	32.00	6714.35	22.94 N	0.21 W	-16.08	13.44	-4.37	13.55
/757 00										
6753.00	29.40	231.80	31.00	6741.89	14.24 N	11.45 W	-1.98	13.55	-3.23	13.63
6785.00	33.60	229.70	32.00	6769.17	3.66 N	24.38 W	14.65	13.13	-6.56	13.56
6815.00	37.40	226.50	30.00	6793.59	7.99 S	37.32 W	32.04	12.67	-10.67	14.10
/0/7 00	70.20	224.40	70.00	4040 T4	<b>84 84 5</b>	<b>-4</b> 4				
6847.00 6878.00	39.20 39.90	224.40	32.00	6818.71 6842.61	21.91 S	51.45 W	51.87	5.63	-6.56	6.94
6903.00	40.30	224.00	31.00 25.00	6861.73	36.06 S	65.21 W	71.61	2.26	-1.29	2.40
0703.00	40.30	224.00	23.00	0001.73	47.64 S	76.40 W	87.71	1.60	0.00	1.60
6927.00	40.80	223.70	24.00	6879.97	58.89 S	87.21 W	103.31	2.08	-1.25	2.24
6959.00	43.10	223.70	32.00	6903.77	74.36 S	101.98 W	124.69	7.19	0.00	7.19
6988.00	47.10	223.00	29.00	6924.23	89.30 S	116.08 W	145.22	13.79		13.90
			27.00	0,24,25	07.50 0	110,00 ₩	173466		2.71	13.70
7020.00	51.40	222.30	32.00	6945.12	107.12 S	132.50 W	169.44	13.44	-2.19	13.54
7052.00	56.10	222.30	32.00	6964.03	126.21 S	149.86 W	195.21	14.69	0.00	14.69
7084.00	60.60	222,60	32.00	6980.82	146.30 S	168.24 W	222.41	14.06	0.94	14.09
					V.10120		,	******		
7115.00	65.10	223.70	31.00	6994.96	166.42 S	187.10 W	249.98	14.52	3.55	14.86
7148.00	69.60	224.40	33.00	7007.67	188.30 s	208.28 W	280.42	13.64	2.12	13.78
7179.00	74.20	224.40	31.00	7017.30	209.34 s	228.89 W	309.88	14.84	0.00	14.84
7210.00	78.70	224.00	31.00	7024.56	230.94 s	249.89 W	340.00	14.52	-1.29	14.57
7241.00	83.40	224.00	31.00	7029.38	252.97 S	271.16 W	370.61	15.16	0.00	15.16
7273.00	87.70	224.70	32.00	7031.86	275.77 s	293.45 W	402.50	13.44	2.19	13.61
7304.00	89.80	225.40	31.00	7032.54	297.67 S	315.39 W	433.50	6.77	2.26	7.14
7403.00	93.30	226.70	99.00	7029.86	366.34 s	386.62 W	532.43	3.54	1.31	3.77
7435.00	93.50	228.80	32.00	7027.96	387.82 S	410.27 W	564.33	0.63	6.56	6.58
			_							
7466.00	93.30	227.40	31.00	7026.12	408.48 S	433.30 W	595.23		-4.52	4.55
7498.00	93.70	228.10	32.00	7024.17	429.96 S	456.94 W	627.13		2.19	2.52
7529.00	93.30	226.80	31.00	7022.28	450.88 S	479.74 W	658.05	-1.29	-4.19	4.38



CHEVRON U.S.A.

CANE CREEK #1-36
SEC 36-T27S-R20E
SAN JUAN COUNTY, UTAH

Calculated by Minimum Curvature Method

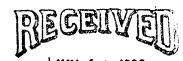
Vert Sect Plane: 225.00 Deg. JUN 1 1 1992

DIVISION OF OIL GAS & MINING

#### - RECORD OF SURVEY -

MEASURED	INCL	DRIFT	COURSE	TRUE	T 0 T	A L	VERTICAL	BUILD	WALK	DOGLEG
DEPTH	ANGLE	DIRECTION	LENGTH	VERT1CAL	RECTANGULAR	RECTANGULAR COORDINATES		RATE	RATE	SEVERITY
(FT)	(DEG)	(DEG)	(FT)	DEPTH	(FT	)	(FT)	(DG/100')	(DG/100')	(DG/100')
7560.00	94.50	226.90	31.00	7020.17	472.03 S	502.30 W	688.96	3.87	0.32	3.88
7591.00	94.50	226.60	31.00	7017.74	493.21 S	524.81 W	719.85	0.00	-0.97	0.96
7621.00	94.20	226.60	30.00	7015.46	513.76 S	546.54 W	749.75	-1.00	0.00	1.00
7652.00	94.40	226.20	31.00	7013.14	535.08 s	568.93 W	780.65	0.65	-1.29	1.44
7683.00	94.70	227.60	31.00	7010.68	556.19 s	591.49 W	811.54	0.97	4.52	4.60
7715.00	94.70	227.60	32.00	7008.05	577.70 s	615.04 W	843.40	0.00	0.00	0.00
7747.00	93.00	226.80	32.00	7005.91	599.39 s	638.47 W	875.30	-5.31	-2.50	5.87
7779.00	92.60	226.80	32.00	7004.34	621.27 s	661.77 W	907.25	-1.25	0.00	1.25
7810.00	92.80	227.00	31.00	7002.88	642.43 S	684.38 W	938.19	0.65	0.65	0.91
7841.00	92.90	227.80	31.00	7001.34	663.39 s	707.17 W	969.13	0.32	2.58	2.60
7886.00	92.80	228.00	45.00	6999.10	693.52 S	740.52 W	1014.02	-0.22	0.44	0.50
7917.00	94.20	228.90	31.00	6997.21	714.04 S	763.67 W	1044.90	4.52	2.90	5.37
7948.00	94.40	228.40	31.00	6994.89	734.46 S	786.88 W	1075.75	0.65	-1.61	1.73
7979.00	93.80	229.20	31.00	6992.67	754.83 s	810.14 W	1106.60	-1.94	2.58	3.22
8010.00	92.90	230.50	31.00	6990.86	774.78 s	833.80 W	1137.44	-2.90	4.19	5.09
8042.00	92.90	228.90	32.00	6989.24	795.45 S	858.17 W	1169.29	0.00	-5.00	4.99
8073.00	91.50	229.60	31.00	6988.05	815.67 S	881.64 W	1200.18	-4.52	2.26	5.05
8104.00	91.00	230.10	31.00	6987.37	835.66 S	905.33 W	1231.06	-1.61	1.61	2.28
8135.00	89.60	229.30	31.00	6987.21	855.71 s	928.97 W	1261.95	-4.52	-2.58	5.20
8166.00	89.30	229.20	31.00	6987.51	875.94 S	952.45 W	1292.87	-0.97	-0.32	1.02
8197.00	89.20	229.30	31.00	6987.91	896.18 S	975.93 W	1323.78		0.32	0.46
8228.00	89.20	229.70	31.00	6988.35	916.31 s	999.50 W	1354.68	0.00	1.29	1.29
8260.00	89.20	229.80	32.00	6988.79	936.98 s	1023.92 W	1386.57		0.31	0.31
8291.00	88.30	230.70	31.00	6989.47	956.80 s	1047.75 W	1417.43		2.90	4.11
8323.00	88.20	231.40	32.00	6990.45	976.90 s	1072.63 W	1449.24	-0.31	2.19	2.21
8355.00	89.20	231.00	32.00		996.95 S	1097.56 W	1481.04		-1.25	3.37
8386.00	89.60	229.40	31.00		1016.79 s	1121.37 W	1511.91		-5.16	5.32
8417.00	89.90	229.50	31.00	6991.63	1036.95 s	1144.93 W	1542.82	0.97	0.32	1.02
8449.00	91.10	228.60	32.00		1057.92 s	1169.10 W	1574.74		-2.81	4.69
8481.00	91.50	228.20	32.00		1079.16 s	1193.02 W	1606.67		-1.25	1.77
8512.00	91.60	229.00	31.00	6989.79	1099.65 s	1216.26 W	1637.60	0.32	2.58	2.60
8544.00	91.60	228.20	32.00		1120.80 s	1240.26 W	1669.52		-2.50	2.50
8575.00	91.30	228.90	31.00		1141.32 s	1263.49 W	1700.45	-0.97	2.26	2.46

#### Smith International, Inc.



CHEVRON U.S.A.

CANE CREEK #1-36
SEC 36-T27S-R20E
SAN JUAN COUNTY, UTAH

Calculated by Minimum Curvature Method UN 1 1 1992 Vert Sect Plane: 225.00 Deg.

DIVISION OF OIL GAS & MINING

#### - RECORD OF SURVEY -

MEASURED DEPTH (FT)	INCL ANGLE (DEG)	D R I F T DIRECTION (DEG)	COURSE LENGTH (FT)	TRUE VERTICAL DEPTH	T O T A L RECTANGULAR COORDINATES (FT)		VERTICAL SECTION (FT)	BUILD RATE (DG/100')	WALK RATE (DG/1001)	DOGLEG SEVERITY (DG/1001)
8607.00	90.80	229.60	32.00	6987.53	1162.20 s	1287.72 W	1732.36	-1.56	2.19	2.69
8636.00	90.00	228.90	29.00	6987.32	1181.13 s	1309.69 W	1761.28	-2.76	-2.41	3.67
8667.00	89.90	228.80	31.00	6987.35	1201.53 s	1333.03 W	1792.21	-0.32	-0.32	0.46
8698.00	91.00	228.90	31.00	6987.11	1221.93 s	1356.38 W	1823.14	3.55	0.32	3.56
8730.00	91.00	229.20	32.00	6986.55	1242.90 s	1380.54 W	1855.05	0.00	0.94	0.94
8761.00	90.90	230.90	31.00	6986.03	1262.80 s	1404.30 W	1885.93	-0.32	5.48	5.49
8792.00	90.50	229.40	31.00	6985.66	1282.66 S	1428.10 W	1916.80	-1.29	-4.84	5.01
8821.00	90.20	229.30	29.00	6985.48	1301.55 s	1450.10 W	1945.71	-1.03	-0.34	1.09
8852.00	90.40	228.60	31.00	6985.32	1321.91 s	1473.48 W	1976.64	0.65	-2.26	2.35
8884.00	90.40	228.20	32.00	6985.09	1343.16 S	1497.41 W	2008.58	0.00	-1.25	1.25
8916.00	90.20	228.20	32.00	6984.92	1364.49 S	1521.26 W	2040.53	-0.63	0.00	0.62
8947.00	89.90	229.00	31.00	6984.90	1384.99 S	1544.52 W	2071.47	-0.97	2.58	2.76
8979.00	89.60	229.70	32.00	6985.04	1405.83 S	1568.79 W	2103.38	-0.94	2.19	2.38
9011.00	89.40	230.70	32.00	6985.32	1426.31 s	1593.38 W	2135.24	-0.62	3.13	3.19
9042.00	91.20	231.20	31.00	6985.15	1445.84 S	1617.45 W	2166.08	5.81	1.61	6.03
9073.00	91.50	231.80	31.00	6984.42	1465.14 S	1641.70 W	2196.87	0.97	1.94	2.16
9105.00	91.00	231.80	32.00	6983.73	1484.92 S	1666.85 W	2228.63	-1.56	0.00	1.56
9137.00	91.00	232.40	32.00	6983.17	1504.57 S	1692.09 W	2260.38	0.00	1.87	1.87
9168.00	90.80	232.90	31.00	6982.68	1523.38 s	1716.73 W	2291.10	-0.65	1.61	1.74
9199.00	90.40	232.00	31.00	6982.36	1542.27 s	1741.31 W	2321.84	-1.29	-2.90	3.18
9230.00	89.10	232.20	31.00	6982.49	1561.31 s	1765.77 W	2352.60		0.65	4.24
9267.00	88.50	232.20	37.00	6983.27	1583.98 s	1795.00 W	2389.30	-1.62	0.00	1.62